# AGENDA

# REGULAR JOINT MEETING OF THE OAKLEY CITY COUNCIL/OAKLEY CITY COUNCIL ACTING AS THE SUCCESSOR AGENCY TO THE OAKLEY REDEVELOPMENT AGENCY/ OAKLEY PUBLIC FINANCING AUTHORITY

**Tuesday, July 11, 2023**
**6:30 PM**

**Oakley City Council Chambers located at 3231 Main Street, Oakley, California 94561. Unless stated otherwise on the agenda, every item on the agenda is exempt from CEQA Guidelines Sections 15060(c), 15061(b)(3), 15273, 15378, 15301, 15323 and/or Public Resources Code Section 21065.**

**MISSION STATEMENT:** The City of Oakley will create a resilient future that fosters and attracts a vibrant and evolving community that welcomes and values all people.

**VISION STATEMENT:** The City of Oakley celebrates our unique Delta lifestyle and small-town feel where we ***Live*** in a safe, dynamic community, ***Work*** together to build the future, and ***Play*** in our own backyard.

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A complete packet of information containing staff reports and exhibits related to each item is available for public review prior to an Oakley City Council and/or City Council Acting as the Successor Agency to the Oakley Redevelopment Agency/Oakley Public Financing Authority meeting at Oakley City Hall, 3231 Main Street, Oakley, CA 94561. Any writings or documents provided to a majority of the Oakley City Council, Oakley City Council Acting as the Successor Agency to the Oakley Redevelopment Agency or Oakley Public Financing Authority regarding any item on this agenda will be made available for public inspection, during regular business hours, at the front counter in the Main Lobby of the Oakley City Hall located at 3231 Main Street, Oakley, CA 94561. Agendas may be picked up at the Oakley City Hall located at 3231 Main Street, Oakley, CA 94561 for no charge. To request information regarding placement on the City's agenda e-mail distribution list, please contact us at (925) 625-7000.

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**Please keep cell phones/electronic devices turned off during the meeting. Please be advised that City Council meetings are video recorded and attendees may appear on video.**

**Information Regarding Public Comment**

Members of the public may address the Council on items of interest that are within the City's jurisdiction. In compliance with State law, the council may not take actionor have discussion on any item that is not specifically listed on the agenda. Public comment on items not listed on the agenda will be heard under the Public Comments section of the agenda. Public comments on items listed on the agenda will be heard as the Mayor calls the items. In compliance with State law, the Council may not take action on an item that is not specifically listed on the agenda. If you would like to speak on any agenda item, please fill out a public speaker card available in the lobby and submit it to the City Clerk seated in the Council Chamber **prior to the agenda item being called.** The Mayor will call you by name to the podium to hear your comment. PUBLIC COMMENTS ARE LIMITED TO THREE (3) MINUTES. Online public comments are accepted until 5 p.m. the day of the meeting and can be submitted at https://www.ci.oakley.ca.us/online-public-comment-card/.

## 1.OPENING MATTERS

Oakley City Council/Oakley City Council Acting as the Successor Agency to the Oakley Redevelopment Agency/Oakley Public Financing Authority

**1.1 Call to Order and Roll Call of the Oakley City Council/Oakley City Council Acting as the Successor Agency to the Oakley Redevelopment Agency/Oakley Public Financing Authority**

**1.2 Pledge of Allegiance to the Flag**

**1.3 Outstanding Youth Award (Lindsey Bruno, Recreation Director)**

**1.4 Update from Nonprofits Awarded American Rescue Plan Act (ARPA) State and Local Fiscal Recovery Grant Funds**
**(a) Caitlin Sly, Executive Director, Meals on Wheels Diablo Region**
**(b) Pat Walsh, President, St. Vincent de Paul-St. Anthony's Conference**

## 2.PUBLIC COMMENTS

At this time, the public is permitted to address the Oakley City Council/Oakley City Council Acting as the Successor Agency to the Oakley Redevelopment Agency/Oakley Public Financing Authority on non-agendized items.

## 3.CONSENT CALENDAR

Consent Calendar items are typically non-controversial in nature and are considered for approval by the Oakley City Council/ Oakley City Council Acting as the Successor Agency to the Oakley Redevelopment Agency/Oakley Public Financing Authority with one single action. Members of the audience, Staff or the Oakley City Council/ Oakley City Council Acting as the Successor Agency to the Oakley Redevelopment Agency/Oakley Public Financing Authority who would like an item removed from the Consent Calendar for purposes of public input may request the Mayor remove the item. The public may request to remove an item(s) to provide input by completing a public speaker card and submitting it to the City Clerk prior to the item(s) being called by the Mayor.

**3.1 Approve Minutes from the Regular Joint City Council/City Council Acting as the Successor Agency to the Redevelopment Agency/Public Financing Authority Meeting Held June 13, 2023 (Libby Vreonis, City Clerk)**
Minutes 06-13-23

**3.2 Accept Report Out of Closed Session Memo (Derek P. Cole, City Attorney)**
Memo

**3.3 Waive the Second Reading and Adopt Ordinance 5-23 Reducing the Acreage of Land and Amending an Existing P-1 (Planned Unit Development) District for the Project Known as Machado Lane Subdivision 9615 (RZ 06-21) APNS 033-190-003 and 033-190-004 (Ken Strelo, Planning Manager)**
Ordinance

**3.4 Waive the Second Reading and Adopt Ordinance 6-23 Updating Mitigation Fees Imposed to Implement the East Contra Costa County Habitat Conservation Plan / Natural Community Conservation Plan (Ken Strelo, Planning Manager)**
Ordinance

**3.5 Authorize the City Manager to Execute Amendment Number 1 to the Consulting Services Agreement with Callander Associates Landscape Architecture, Inc. for the Enrico Cinquini Park Construction Project Capital Improvement Project (CIP) Number 281 (Kevin Rohani, P.E., Public Works Director/City Engineer)**

Staff Report
1. Resolution
2. Proposal

**3.6 Fiscal Year (FY) 2022/23 Fourth Quarter Report on the Capital Improvement Program (Kevin Rohani, P.E., Public Works Director/City Engineer)**

Staff Report

**3.7 Agreement with Mark Thomas & Co. Inc. for Engineering Design Services associated with East Cypress Road Lane Alignment Analysis (Railroad Tracks**

**to Main Street) Capital Improvement Project Number 301 (Kevin Rohani, P.E., Public Works Director/City Engineer)**

Staff Report
1. Resolution
2. Proposal

**3.8 Award of Construction Contract to Specified Play Equipment Company for the Koda Dog Park Shade Structure Project - Capital Improvement Program (CIP) Number 287 (Kevin Rohani, P.E., Public Works Director/City Engineer)**
Staff Report
1. Resolution
2. Proposal

**3.9 Adopt a Resolution Approving a Side Letter to the Oakley Police Officers Association Memorandum of Understanding (Jeri Tejeda, Human Resources Director)**
Staff Report
1. Resolution
2. Side Letter

**3.10 Adopt a Resolution Authorizing the City Manager to Execute a Consulting Services Agreement with the Public Safety Family Counseling Group, Inc. to Provide Training and Support Related to Critical Incidents as well as Counseling Services on an as Needed Basis for Members of the Oakley Police Department (Jeri Tejeda, Human Resources Director)**
Staff Report
1. Resolution
2. Contract

## 4.PUBLIC HEARINGS

**4.1 Sellers Avenue Subdivision 9614 Rezone (RZ 01-22), Vesting Tentative Map (TM 01-22), Final Development Plan (FDP 01-22), Design Review (DR 01-22) and adoption of a Mitigated Negative Declaration finding that this project, with mitigations, would not require the adoption of an Environmental Impact Report (Ken Strelo, Planning Manager)**
Suggested Action: Staff Recommendation: 1) Receive the Staff Report, 2) Receive Questions from the City Council, 3) Open the Public Hearing, 4) Receive Comments from the Applicant, 5) Receive Public Testimony, 6) Close the Public Hearing, 7) Deliberate, 8) Summarize the Deliberation, 9) Waive First Reading and Introduce the Ordinance, 10) Adopt the Resolution
Staff Report
1. Vicinity Map

2. Notice of Public Hearing
3. Applicant's Plans
4. Sellers Avenue Subdivision - Notice of Intent to Adopt a Mitigated Negative Declaration
5. Sellers Avenue Subdivision - Initial Study/Mitigated Negative Declaration
5a. Exhibit "A": Sellers Avenue Subdivision – Responses to Comments on IS/MND
6. Planning Commission Staff Report from April 4, 2023
7. Planning Commission Meeting Minutes from April 4, 2023
8. Planning Commission Resolution 7-23
9. Proposed Ordinance
10. Draft Resolution with Exhibit "A" Mitigation Monitoring Program
10a. Sellers Avenue Subdivision Mitigation Monitoring Program

**4.2 Proposed Resolution Revising Fees in the City's Master Fee Schedule for Rental of Fields, Group Picnic Areas, and the Oakley Recreation Center by Oakley Based Businesses (Tim Przybyla, Finance Director)**

Suggested Action: Staff Recommendation: 1) Receive the Staff Report, 2) Receive Questions from the City Council, 3) Open the Public Hearing, 4) Receive Public Testimony, 5) Close the Public Hearing, 6) Deliberate, 7) Summarize the Deliberation 8) Adopt the Resolution

Staff Report
1. Resolution
2. Master Fee Schedule

## 5.REGULAR CALENDAR

**5.1 Annual Report of Military Equipment Usage-2022 (Paul Beard, Chief of Police)**

Staff Report
1. Police Department 2022 Annual Military Equipment Report
2. Oakley Police Department Policies Regarding Military Equipment

**5.2 Resolution authorizing the City Manager to execute a contract with Urban Field Studio for the Library and O'Hara Residential Projects Design and Economic Feasibility Analysis and appropriating American Rescue Plan Act funds for the project (Joshua McMurray, City Manager)**

Staff Report
1. Draft Resolution
2. RFP dated April 7, 2023
3. DAHLIN Proposal
4. Urban Field Studio Proposal
5. Urban Field Studio Agreement

**5.3 Authorization to Execute the Purchase and Sale Agreement with R&R Pacific Construction, Inc. for 0.90 Acres of APN 037-160-018 (Joshua McMurray, City**

**Manager)**
Staff Report
1. Bid Proposal Cover Letter
2. Preliminary Plot and Project Plans
3. Draft Purchase and Sales Agreement
4. Draft Resolution

## 6.REPORTS

**6.1 CITY MANAGER**
**(a) City Manager**
**(b) Results of the Marsh Creek Pedestrian Bridge Survey**
**(c) KOA/Tyler Presentation**
**(d) Fireworks Update**

6.1c - Tyler Enterprise ERP Implementation Powerpoint

**6.2 OAKLEY CITY COUNCIL/OAKLEY CITY COUNCIL ACTING AS THE SUCCESSOR AGENCY TO THE OAKLEY REDEVELOPMENT AGENCY**

**(a) Reports from Council Liaisons to Regional Committees, Commissions and Boards AND Oakley City Council/Oakley City Council Acting as the Successor Agency to the Oakley Redevelopment Agency**

**(b) Requests for Future Agendas**

## 7.WORK SESSIONS

**7.1 Work Session to Discuss AB 1657 and Recent General Assembly of the Association of Bay Area Governments (Derek Cole, City Attorney)**
Staff Report
1. AB-1657

## 8.CLOSED SESSION

**8.1 CONFERENCE WITH REAL PROPERTY NEGOTIATORS**
**Pursuant to Government Code Section 54956.8**
**Property: 3080 Main Street, Oakley, CA, APN 037-200-011**
**Agency Negotiator: Joshua McMurray, City Manager**
**Negotiating Party: Kent Ipsen**
**Under Negotiation: Price and term of payment**

9.ADJOURN

# Minutes of the Regular Joint Meeting of the Oakley City Council/Oakley City Council Acting as the Successor Agency to the Oakley Redevelopment Agency/Oakley Public Financing Authority held June 13, 2023

## 1) OPENING MATTERS

### 1.1 Call to Order and Roll Call of the Oakley City Council/Oakley City Council Acting as the Successor Agency to the Oakley Redevelopment Agency/Oakley Public Financing Authority

Mayor Aaron Meadows called the meeting to order at 6:30 p.m. in the Oakley City Council Chambers located at 3231 Main Street, Oakley, California. Vice Mayor Anissa Williams and Councilmembers Dr. George Fuller, Hugh Henderson and Shannon Shaw were also present.

### 1.2 Pledge of Allegiance to the Flag

Councilmember Henderson led the Pledge of Allegiance to the Flag.

### 1.3 Proclamation Recognizing June as LGBTQ+ Pride Month (Jimmy Ramirez, Oakley Planning Commissioner; David Carrillo, Executive Director and Kevin Martin, Empowerment Program Coordinator and Training Manager, Center for Human Development's Empowerment Program)

Mayor Meadows presented the proclamation to Commissioner Ramirez and Mr. Martin on behalf of the City Council. Commissioner Ramirez and Mr. Martin provided comments.

### 1.4 Update from Contra Costa County Water District Director Connstance Holdaway and Oliver Symonds, Senior Public Information Specialist

District Director Holdaway provided a PowerPoint presentation.

### 1.5 Update from Contra Costa Mosquito and Vector Control District (Michael Krieg, Board Trustee)

Board Trustee Krieg provided an update addressing invasive mosquitoes, use of drones to map and treat areas, and funding should an outbreak occur.

### 1.6 Youth Council Report and Recognition from the National Alliance on Mental Illness (NAMI) (Lindsey Bruno, Recreation Director)

Sergio Hernandez, Manuel Gutierrez and Yuliana Luna, members of the Oakley Youth Advisory Council (OYAC), provided a PowerPoint presentation.

Recreation Director Lindsey Bruno mentioned Outstanding Youth Award winners will be presented in July.

Gigi Crowder, Executive Director of NAMI Contra Costa, thanked OYAC for their work and video. She provided certificates to Ms. Bruno and OYAC participants.

## 2) PUBLIC COMMENTS

Richie Cruz, Field Representative with Carpenters Union Local 180 in Vallejo, commented on labor standards, including medical and retirement benefits, local hires and apprenticeships.

Sean Reese, Field Representative with NorCal Carpenters Union, requested area standard labor agreements to be used.

David Larsen commented on Main Street traffic congestion in the Downtown area and inquired if a bypass would be possible.

Mayor Meadows commented that at one time yes but not at this time; most of the traffic goes down Laurel to HWY 4.

## 3) CONSENT CALENDAR

**3.1 Approve Minutes from the Regular Joint City Council/City Council Acting as the Successor Agency to the Redevelopment Agency and Special Public Financing Authority Meeting Held May 23, 2023 (Libby Vreonis, City Clerk)**

**3.2 Accept Report Out of Closed Session Memo (Derek P. Cole, City Attorney)**

**3.3 Acceptance of work associated with the Holly Creek Park Restroom Construction Project-Capital Improvement Project Number 248 (Kevin Rohani, P.E., Public Works Director/City Engineer)**

**3.4 Award of Contract to Terracare Associates, LLC for City Parks and Landscape Maintenance Services (Kevin Rohani, P.E., Public Works Director/City Engineer)**

**3.5 Award of Construction Contract to R & R Pacific Construction, Inc. for the Construction of Fiscal Year (FY) 2022/23 Street Repair and Resurfacing Project-Capital Improvement Project (CIP) Number 279 (Kevin Rohani, P.E., Public Works Director/City Engineer)**

**3.6 Acceptance of Subdivision Improvements Associated with the Oakley Logistics Center (Phase 1) Subdivision 9513 located at Bridgehead Road and Wilbur Avenue (Kevin Rohani, P.E., Public Works Director/City Engineer)**

**3.7 Acceptance of Subdivision Improvements Associated with the Oakley Logistics Center (Phase 2) Subdivision 9549 located at Wilbur Avenue and Industrial Way (Kevin Rohani, P.E., Public Works Director/City Engineer)**

**3.8 Annexation Number 34 (Brownstone Subdivision 8803) to the City of Oakley Community Facilities District Number 2015-2 (Parks, Streetlight, Landscape, and Stormwater Services) (Kevin Rohani, P.E., Public Works Director/City Engineer)**

**3.9 Accepting the Subdivision Improvements Associated with Stonewood Unit 1A Subdivision 7662 located at southwest corner of Rose Avenue and Longhorn Way (Kevin Rohani, P.E., Public Works Director/City Engineer)**

**3.10 Consideration of a Resolution Authorizing the Purchase of a 2023 Chevrolet Silverado 2500 HD for $55,858.54 from California Automotive Retailing Group, Inc. DBA Dublin Chevrolet (Kevin Rohani, P.E., Public Works Director/City Engineer)**

**3.11 Adopt a Resolution Approving a list of projects for Fiscal Year 2023/2024 Funded by Senate Bill 1: The Road Repair and Accountability Act of 2017 (Kevin Rohani, P.E., Director of Public Works/City Engineer)**

**3.12 Creating Zone 188 within the Oakley Special Police Tax Area consisting of the Honey Creekside project (Subdivision 9579) located at 463 and 560 Honey Lane (APNs 033-030-028 and 033-030-032) (Kevin Rohani, P.E., Public Works Director/City Engineer)**

No public comments were submitted.

Dr. Fuller pulled items 3.1 and 3.5.

It was moved by Dr. Fuller and seconded by Vice Mayor Williams to approve the remainder of the Consent Calendar. Motion was unanimous and so ordered. (5-0)

Item 3.1

Dr. Fuller requested a correction to the minutes for item 1.3 to reflect that Ms. Smith promised the projected ridership numbers on the train and the cross-county bus system.

It was moved by Councilmember Fuller and seconded by Councilmember Shaw to approve the minutes as corrected. Motion was unanimous and so ordered. (5-0)

Item 3.5

Dr. Fuller expressed concern that he is uncomfortable approving anything with R&R until there is a presentation since there has been “smoke” regarding R&R not meeting proper requirements, pay, etc. He mentioned staff has provided assurance; however, he would like a presentation to provide information on how R&R consistently comes in so much lower than other bids and that they are following the proper wage requirements.

Mr. Rohani responded that all contracts go through an extensive vetting process, special interest groups made allegations all of which were unfounded with R& R on the Cypress Road project last year, all contracts require certified payroll and prevailing wages before invoices are paid, a peer review occurs to verify numbers, and this is a legitimate company. He shared that there were only 3 bids on this property and R&R submitted a very competitive bid.

Vice Mayor Williams commented that she reviewed information on prevailing wage, apprenticeships, etc. for R&R so the City does have record they are doing everything that the City has asked of them and that is required by labor laws; this information reassures her that this is the right bid to go with.

Mr. Rohani commented that there is a lot of work that goes on before the report comes to Council and he wants to make sure there is confidence in the process.

Dr. Fuller commented it is no reflection on staff's work; he has reviewed background documents and agrees staff has done a thorough job and that there are special interest groups looking at wage consideration, and he understands R&R has its equipment, materials and labor close by, but for some reason they are targeted and he would feel more comfortable if there is a presentation that would also allow some of the people writing letters to provide testimony.

Mr. Rohani explained that he and the City Attorney have responded to letters and have not heard back any further from those they have responded to; they just try to create "smoke", it is part of the process.

It was moved by Vice Mayor Williams and seconded by Councilmember Shaw to award the contract as presented. AYES: Henderson, Meadows, Shaw, Williams. ABSTENTION: Fuller. (4-0-1)

## 4) PUBLIC HEARINGS

### 4.1 Public Hearing to Consider Confirming the Diagrams and Assessments and Ordering the Levy and Collection of the Annual Assessments for Fiscal Year 2023-24 for the City of Oakley Street Lighting and Landscape Assessment District No. 1 (Kevin Rohani, P.E., Public Works Director/City Engineer)

Public Works Director/City Engineer Kevin Rohani presented the staff report.

There were no questions from the City Council.

Mayor Meadows opened the public hearing and called for public comments.

No public comments were provided, therefore Mayor Meadows asked if any property owners would like to turn in a written protest regarding the levy of Street Lighting and Landscape Assessment District No. 1 assessments for FY 2023-2024.

No written protests were submitted; therefore, Mayor Meadows closed the public hearing and asked the City Clerk to report if there is a majority protest regarding the levy of Street Lighting and Landscape Assessment District No. 1 assessments for FY 2023-24 and the City Clerk reported there were none.

It was moved by Councilmember Henderson and seconded by Councilmember Shaw to adopt the resolution. Motion was unanimous and so ordered. (5-0)

### 4.2 Machado Lane Subdivision 9615 Rezone, Vesting Tentative Map, Final Development Plan, and Design Review (RZ 06-21, TM 03-21, FDP 01-21, DR 10-21) ? Request for approval of a Rezone to P-1 (Planned Unit Development) District, a Vesting Tentative Map to subdivide approximately 20.11 acres into 76 single family residential lots, a Final Development Plan in conjunction with the P-1 District, and Design Review. APNs 033-190-003 and 033-190-004 and Adoption of a Mitigated Negative Declaration Findings, this Project, with Mitigations, Would not Require the Adoption of an Environmental Impact Report Under the California Environmental Quality Act. (Ken Strelo, Planning Manager)

Planning Manager Ken Strelo presented the staff report and provided a PowerPoint presentation.

Mayor Meadows called for questions from the City Council.

Vice Mayor Williams inquired if E. Cypress improvements will be completed before any homes are built.

Mr. Strelo confirmed that they will be completed.

Mayor Meadows inquired who required no natural gas.

Rod Stinson, Vice President/Air Quality Specialist with Raney Planning and Management, Inc. responded that it was an Air District requirement as a threshold of significance in the GHG analysis as a mitigation measure in the CEQA process.

Mayor Meadows commented that he is aware Bay Area Quality Control District wants to do away with natural gas and that it passed a resolution, but he thought it applied in the future.

Mr. Stinson explained through the threshold of significance in the CEQA process, they have best management practices-based thresholds rather than numeric and there must be a showing of no natural gas to meet the threshold.

Mayor Meadows opened the public hearing and asked if the applicant had any comments.

Applicant Kevin Freyer with MLC Holdings explained the work they have done to get to this point, and he addressed traffic and road improvements.

Mayor Meadows called for public comments.

Leopoldo Becerra provided public comment that was made part of the meeting record.

Mayor Meadows closed the public hearing and called for Council deliberation.

Dr. Fuller commented that he is pleased the applicant addressed the prior Council's concerns and it is one of the better plans he has seen. He mentioned the land by Sellers is too valuable and developers will continue to purchase it and build and to stop it would be very difficult.

Councilmember Shaw expressed gratitude for the applicant having heard the prior Council and changing the plans, and for working with staff to improve E. Cypress.

Ordinance: It was moved by Councilmember Shaw and seconded by Vice Mayor Williams to waive the first reading and introduce the proposed ordinance for Rezone. Motion was unanimous and so ordered. (5-0)

Resolution: It was moved by Dr. Fuller and seconded by Councilmember Shaw to adopt the proposed resolution, including modification of CEQA Mitigation Measure VIII-1 and adoption of the Initial Study/Mitigated Negative Declaration that also applies to Rezone entitlement. Motion was unanimous and so ordered. (5-0)

Mayor Meadows called for a 5-minute break at 7:59 p.m. and thereafter the Council reconvened.

**4.3 Consideration of an Ordinance to Update Mitigation Fees Imposed to Implement the East Contra Costa County Habitat Conservation Plan / Natural Community Conservation Plan (Ken Strelo, Planning Manager)**

Planning Manager Ken Strelo presented the staff report.

Mayor Meadows called for questions from the City Council; there being none, he opened the public hearing and called for public comments.

No public comments were submitted, and Mayor Meadows closed the public hearing.

There was no deliberation by the Council.

It was moved by Vice Mayor Williams and seconded by Councilmember Henderson to waive the first reading and introduce the ordinance updating the mitigation fees imposed to implement the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan. Motion was unanimous and so ordered. (5-0)

## 5) REGULAR CALENDAR

**5.1 Consideration of Resolutions Adopting the Fiscal Year 2023-2024 Proposed Operating Budget, Statement of Financial Policies, Appropriations Limit, Adopting the Fiscal Year 2023-2024 Capital Budget and 5-Year Capital Improvement Program (CIP) for Fiscal Years 2023-2024 through 2027-2028 and Making Findings Related Thereto, and Approving Additional Sworn Police Positions on a Temporary Basis (Tim Przybyla, Finance Director)**

Finance Director Tim Przybyla presented the staff report and provided a PowerPoint presentation.

Dr. Fuller inquired what debts the City is servicing for $2.2 million and if it includes Carol Lane.

Mr. Przybyla mentioned he believes the only debt service is the Recreation Center, but he will get back to him.

Dr. Fuller referred to the bonds issued for Carol Lane.

City Manager Joshua McMurray mentioned the City loaned funds for the Carol Lane project and over time as they generate income, they will pay the City residual payments, but they have not yet started.

Mr. Przybyla added that the City has loaned funds for senior projects and has received some residual payments, but he is not certain if that has come from Carol Lane; he will get back to him.

Dr. Fuller indicated he is satisfied with Mr. McMurray's response and no further research is needed from Mr. Przybyla.

Vice Mayor Williams inquired what the benefit is to have the policy change for community facilities districts (CFDs) to be added to the asset life cycle replacement program.

Mr. Przybyla mentioned the benefit is the method of budgeting which they have been doing for landscape and lighting districts and CFDs, this just makes it an official policy.

No public comments were submitted.

Resolution 1: It was moved by Dr. Fuller and seconded by Vice Mayor Williams to adopt a resolution approving the Fiscal Year 2023-2024 Proposed Operating Budget, Statement of Financial Policies and Appropriations Limit. Motion was unanimous and so ordered. (5-0)

Resolution 2: It was moved by Vice Mayor Williams and seconded by Councilmember Henderson to adopt a resolution approving the Fiscal Year 2023-2024 Capital Budget and CIP for Fiscal Years 2023-2024 through 2027-2028 and confirm the CIP is consistent with the adopted Oakley General Plan and meets the requirements of Section 65401 of the Government Code.

Dr. Fuller mentioned he has the same objections he has had with projects 205, 215 and 270 regarding the train platform and gateway park therefore he will be voting no unless the Council bifurcates them out. He expressed that he is pleased with project 287 to have shade at the dog park. He mentioned project 298 involves traffic calming and while he understands it, he hopes it does not result in shutting down the Downtown. He mentioned the ADA goes back to 304 and he is still concerned about $50k against $100 million in costs.

AYES: Henderson, Meadows, Shaw, Williams. NOES: Fuller. (4-1)

Resolution 3: It was moved by Councilmember Henderson and seconded by Councilmember Shaw to adopt a resolution to approve temporary over-hiring for two Police Officer positions. Motion was unanimous and so ordered. (5-0)

**5.2 Selection of Non-Profit Organizations to Operate Beer and Wine Concessions at select City Special Events (Lindsey Bruno, Recreation Director)**

Recreation Director Lindsey Bruno presented the staff report.

No public comments were submitted.

It was moved by Councilmember Henderson and seconded by Vice Mayor Williams to approve the assignments of beer and wine concessions to the Rotary Club of Oakley for Summer Fest and to East County All Star Fundraising for the Heart of Oakley Festival. Motion was unanimous and so ordered. (5-0)

**5.3 Authorization for the City Manager to Execute a Purchase and Sale Agreement with Thomas Properties Inc. for the sale of property located at 1033 Main Street and 5400 Neroly Road (APN 037-050-013 and APN 037-050-014) (Harumi Murata, Economic Development Analyst)**

Economic Development Analyst Harumi Murata presented the staff report and provided a PowerPoint presentation.

No public comments were submitted.

Sam Thomas with Thomas Properties shared East County projects they have been worked on and are currently working on and mentioned there is a priority retailer they are working with and a secondary option.

Mayor Meadows commented he prefers the primary retailer.

Vice Mayor Williams shared that the City Council receives a lot of criticism for allowing fast food, gas stations and car washes and because this is a City-owned property, if the priority retailer or similar use does not occur, she does not feel comfortable with the secondary option.

City Manager Joshua McMurray explained it is the purview of the Council to make that decision and if this were the consensus of the Council, staff would have to discuss it with Thomas Properties and there is a possibility there may be no agreement as it needs to be economically viable for them. He mentioned staff has expressed to Thomas Properties the Council's concerns and that the priority retailer or like use is strongly desired. He mentioned this a highway accessible area unlike other areas near housing and schools in the city where some of the other uses have been proposed.

Mr. Thomas shared that the priority retailer has been in the market a while and they have already completed their tour. He added Thomas Properties has a long working relationship with the City and they provide transparency and trust.

Dr. Fuller mentioned to the east of the site there is a trailer park with temporary and permanent structures. He inquired if it is zoned residential.

Mr. McMurray explained it is zoned commercial and he does not believe they have any intention to sell at this time.

Dr. Fuller inquired if the secondary uses would require a conditional use permit (CUP).

Mr. McMurray confirmed that any fast-food establishment, gas station or car wash would require a CUP, as well as an agricultural store because of the outdoor storage, so anything in the schemes shown would require a CUP and design review.

Dr. Fuller inquired what type of car wash would be proposed and if it would include a full-service car wash.

Mr. Thomas explained it depends on the field operator; the field operator is established and then the site plan is developed. He mentioned if a full-service car wash operator is available and provides a proposal, it could be considered.

Mayor Meadows mentioned he prefers the first scheme and would like Thomas to push hard for it, but he is not opposed to the second scheme because the site is located near the highway and is appropriate for those uses.

Dr. Fuller expressed that his preference is a sit-down restaurant, but he has agreed with Mayor Meadows in the past that a drive-through that fits in with the community and area can be advantageous. He mentioned he has heard from the community that it is not necessarily

opposed to drive-throughs but not in areas such as Laurel Plaza where the developer made a capitalistic move to maximize profit without regard to safety or the surrounding community which was resented by the community. He mentioned Thomas Properties has proposed uses that fit in with the community although he has concern regarding Quick Quack because even though the trailer park to the east is zoned commercial, it is still home to those who live there. He shared his opinion; a full-service car wash is more contained and has limited hours causing less disturbance. He mentioned it is a valuable piece of land and there is no reason for him to say there should not be a gas station on it. He expressed appreciation for an ag business but is uncertain how well it would do in this area. He mentioned his preference would be for a sit-down restaurant, i.e., Denny's, but he understands restaurants are moving toward take-out and drive-throughs to survive. He indicated he is comfortable with Thomas Properties' approach.

Councilmember Shaw mentioned option 1 is the best option and while she understands there are other uses of gas stations, fast-food and car washes in the area, she agrees with Vice Mayor Williams that if it is possible to limit it to option 1, she would like to see what that would look like.

Councilmember Henderson agreed that the ag business is preferred but they shouldn't delay the sale of this property even if it means having to go through CUPs with gas stations, car washes or fast food.

Vice Mayor Williams shared she has been receiving a lot of comments regarding Wendy's that is not yet built and there has been no interest in the empty drive-through across the street.

Mayor Meadows commented that it is not feasible.

Vice Mayor Williams continued to say that there are things sitting there already and she would like to take into consideration what they heard from their economic consultants who determined Oakley has enough drive-through, car washes and fast-food type businesses and recommended more living wage jobs. She added that an ag store would provide higher wages than fast-food and because of its proximity to the Logistics Center, she believes they can put more restrictions on it to make it those types of businesses. She mentioned the area is saturated with fast-food, gas stations and car washes and she doesn't feel it is the responsible thing to do when the City owns the property if they can't guide it better and it sets the developer up for failure if they have many conditions on them for CUPs.

Dr. Fuller commented it is his understanding that there is discussion when drawing the plans about conditions so when it comes to the Council, the Council is not adding those conditions at that time.

Mr. McMurray mentioned it would be a completely collaborative process.

It was moved by Dr. Fuller and seconded by Councilmember Henderson to adopt the resolution approving the Purchase and Sale Agreement as presented. AYES: Fuller, Henderson, Meadows. NOES: Shaw, Williams. (3-2)

**5.4 Adoption of Resolution Authorizing the Mayor to Execute an Amendment to the City Manager's Employment Agreement Providing for an Increase in Salary from $250,000 to $277,500 Annually (Derek Cole, City Attorney)**

City Attorney Derek Cole presented the staff report.

No public comments were submitted.

Dr. Fuller thanked Mayor Meadows and Vice Mayor Williams for their work on negotiations on this matter. He mentioned it is his understanding that Mr. McMurray has not had any salary increase in 2 years, so they are catching up on the cost-of-living adjustment and he has done an exemplary job to warrant additional increase beyond that.

It was moved by Dr. Fuller and seconded by Councilmember Shaw to adopt the resolution authorizing the Mayor to execute an amendment to the City Manager's Employment Agreement. Motion was unanimous and so ordered. (5-0)

**5.5 Adopt a Resolution approving the Salary Schedule for Fiscal Year 2023/2024 and authorizing the addition and removal of specific job classifications (Jeri Tejeda, Human Resources Director)**

Human Resources Director Jeri Tejeda presented the staff report.

No public comments were submitted.

It was moved by Dr. Fuller and seconded by Vice Mayor Williams to adopt the resolution approving the Salary Schedule for Fiscal Year 2023/2024 and authorizing the addition and removal of specific job classifications. Motion was unanimous and so ordered. (5-0)

## 6) REPORTS

**6.1 CITY MANAGER**
**(a) City Manager**

City Manager Joshua McMurray reported that a public survey is available for the next few weeks on the City's website regarding the bridge connection for the Marsh Creek Restoration Project, there will be only one City Council meeting held in each June, July and August, the City's inaugural Juneteenth celebration will be held June 17, 10am-1pm at Civic Center Plaza, and the City' 2nd Annual Summer Fest will be held July 1, 11am-5pm at Civic Center Plaza.

**(b) Fireworks Update**

Chief of Police Paul Beard provided an update on fireworks including data regarding past calls for service and cases during 2020, 2021 and 2022 which showed a 40% decrease in calls for service between 2020 and 2021, and a 35% decrease for calls for service between 2021 and 2022. He emphasized the focus is on education, but fines will be used. He shared that Police is co-branding with Fire to bring awareness and education and that educational flyers/forms were issued last week to areas of the city where there has been a persistent concentration of fireworks. He mentioned they will also use safety signs and social media for education. He discussed staffing during the period of June 30-July 4, including a drone pilot available on duty.

He expressed hope that through education there is a decrease in activity and less necessity for citations.

Councilmember Shaw inquired if Police is open to suggestions regarding where to distribute educational flyers which Chief Beard confirmed they are.

Vice Mayor Williams requested the number of calls for service for 2022 which Chief Beard responded was 83.

## 6.2 OAKLEY CITY COUNCIL/OAKLEY CITY COUNCIL ACTING AS THE SUCCESSOR AGENCY TO THE OAKLEY REDEVELOPMENT AGENCY

### (a) Reports from Council Liaisons to Regional Committees, Commissions and Boards AND Oakley City Council/Oakley City Council Acting as the Successor Agency to the Oakley Redevelopment Agency

Dr. Fuller reported he attended the Memorial Day celebration and met with Wendy Fabian, Constituent Case Manager for Assemblymember Lori Wilson, and that Assemblymember Wilson has breast cancer, and he has concern she may not be able to perform many of her duties. In relation to the handouts he provided, he mentioned last year during an Association of Bay Area Governments (ABAG) meeting, Berkeley's mayor was very upset that their city would have to meet 8,900 RHNA affordable housing units and has proposed a 2024 ballot measure for the state to offer millions of dollars for building affordable housing units but the catch is that places like Berkeley and Oakland that have large numbers of RHNA affordable housing unit numbers to meet could transfer it out to "open areas" to reduce their numbers. He referenced his handouts including *The New York Times* article regarding sentiment of "not in my backyard" in Berkeley, AB 1657 (Wicks) proposing $10 million in bonds which includes a clause that the legislature can change housing requirements which includes RHNA and would allow Berkeley to be excused from housing requirements if it builds in open areas such as ours, and SB 555 (Wahab) in which a blue commission would decide how the funding is distributed. He mentioned it will be an uphill battle if passed and it is discriminatory. He mentioned ABAG will discuss it June 16th.

Councilmember Henderson reported he attended the Diablo Water District meeting on May 24th, the Memorial Day ceremony, Friday Night Bites on June 2nd, and the 40th officer swearing-in yesterday and the City is now fully staffed.

Councilmember Shaw shared she attended the Tri-Delta Transit meeting, the Memorial Day event on May 27th, the Mayors Conference on June 1st, the Clayton Pride parade on June 4th, and on June 7th she met with Supervisor Burgis to discuss the library, park, E. Cypress and all things Oakley and how she wants to continue to support Oakley. She also reported she spent the afternoon with Assemblymember Lori Wilson and Wilson is undergoing treatment but is doing well and hopes her treatment will end in the fall; they were both at the Contra Costa Building & Construction Trades Council luncheon. She reported she attended the Meals on Wheels gala on June 10th and a celebration for the City being fully staffed and the swearing-in ceremony for Oakley's 40th officer on June 12th. She shared she joined Empowered Aging's Hear Me, See Me campaign.

Mayor Meadows reported last week he attended the TRANSPLAN/ECCRFA/HWY-4 Bypass Authority meeting, the Mayors Conference on June 1st, the swearing-in ceremony for Oakley's

40th officer and celebration for the City being fully-staff, and the Memorial Day celebration. He announced he will attend the MCE meeting this Thursday.

**(b) Requests for Future Agendas**

Dr. Fuller requested a work session in July to discuss AB 1657 and related bills and for the City Attorney prepare a legislative analysis to determine how it may impact Oakley and go from there. Councilmember Shaw and Mayor Meadows supported it.

Mayor Meadows called for a break at 9:30 p.m. and thereafter the Council reconvened.

## 7) WORK SESSIONS

### 7.1 55-Acre Park Discussion (Joshua McMurray, City Manager and Kevin Rohani, P.E., Public Works Director/City Engineer)

City Manager Joshua McMurray presented the staff report.

Mayor Meadows inquired if Mr. McMurray has had any conversations with bass fishermen regarding access from the site to where they go because it looks like a lot of slow water to get to fast water.

Mr. McMurray confirmed staff has spoken with people the City is partnering with and others in the community who believe this is a viable place to access the Delta. He mentioned he has heard that Big Break is viable but not a favorite launch for fishermen and boaters; a facility further east is desired.

Vice Mayor Williams inquired if it is all conceptual at this time and there is nothing to look at.

Mr. McMurray explained they have community feedback from one meeting and a survey but it would be unfair to present a plan at the second community meeting without having Council direction because there is time and cost associated with it.

Vice Mayor Williams inquired if it would eliminate the ballfields.

Mr. McMurray confirmed it would not eliminate the ballfields but would reduce the number of ballfields.

Vice Mayor Williams commented that there would not be sufficient ballfields to host tournaments.

Mr. McMurray confirmed that is correct and noted that the City is working with developers who are developing or will be developing in coming years massive sports fields in the Summerlake North area and they are poised to construct it faster than the City would be able to with the 55-acre park project.

Vice Mayor Williams expressed Oakley families probably will not want to camp here which is fine because outside visitors support economic development. She inquired what is being added for family entertainment.

Mr. McMurray explained staff would like to keep the kayak and beach access as currently there is nowhere in Oakley to access the Delta. He mentioned a second dog park could be explored or other day uses.

Vice Mayor Williams requested if the ballfields are to be reduced for there to be more family-oriented amenities included as options, i.e., batting cages, mini golf, other activities that could be run by concessionaires. She inquired if motorized boats are launching from the site where non-motorized devices would launch from.

Mr. McMurray indicated they would be in the same location as the space is limited. He mentioned there could be defined spaces for kayak and paddleboards as well as motorized boats and roped area beach/swim access, but they would share the water which is no different than other marinas such as Big Break.

Mayor Meadows commented there are 37 proposed uses on the plan and probably 30 too many. He mentioned he wanted to see athletic fields to bring tournaments in, but this new plan makes sense as unlike athletic fields that can be placed anywhere in Oakley, aquatic uses can only be by the water, so the site makes sense for the uses Mr. McMurray mentioned. Regarding camping, he mentioned he believes locals would use it, i.e., Boy Scouts, and it would be a different demographic for the uses mentioned than it would be for sports fields; there are people in Oakley other than athletes to also consider. He expressed that he would like the focus to be more on aquatic and camping use without overloading the site with too many amenities.

Dr. Fuller agreed with Mayor Meadows, expressing there is too much in the plan. He mentioned there are other agricultural opportunities around the area and what would be to gain by having more at this park, as well as the Burroughs tract house on the property. He suggested the Emerson house could be preserved as a historical sight with views of the Delta. He agreed water access is important for those with and without a boat and there should be open access to the Delta as it is a great local amenity. He mentioned local trails connect to this area and would be great for backpacking and camping along the water. He mentioned the fields are too remote which may hurt their opportunity for grants; he would like to see the fields come out of that area and be closer to the city for access. He mentioned there is play equipment throughout the city to access but the picnic area is fine. He suggested the focus be on water access and open, outdoorsy recreation with less concentration on sports.

Councilmember Henderson supported the idea of working on water access as it is probably the only piece of property that the City owns that it could do something directly into the waterway and it would be a missed opportunity if they don't explore access. He suggested looking at what other agencies, i.e., East Bay Regional Parks District, ae doing regarding camping and day use opportunities.

Councilmember Shaw inquired if they are referring to tent or RV camping.

Mr. McMurray mentioned it could be both and there may be an opportunity to partner with other agencies. He mentioned he envisions camping like the East Bay Regional Parks District model where certain alcohol is prohibited, there are park hours and park rangers making rounds, not raging parties like at some RV resorts or KOAs.

Councilmember Shaw commented she is not in favor of RV-type camping and she believes there are too many amenities on the plan; she would like to do a few things and do them well. She inquired what the cost would be to explore dual options, the ballfields concept, and this new

concept, as she doesn't want to get too far down the road and find out it is not viable. She mentioned food trucks on the water might be another idea. She agreed if the ballfields are scaled back, she would like to see something more youth-friendly and would like to bring the Oakley Youth Advisory Council (OYAC) into the discussion. She mentioned Supervisor Burgis mentioned there might be some funding opportunities which she would like to explore.

Dr. Fuller suggested looking at the East Bay Regional Parks District's site in Oakland. He mentioned he thinks the City will go further with grant funding opportunities if it includes diversity, equity and inclusion.

Mayor Meadows mentioned he believed it is Chabot Regional Park that Dr. Fuller mentioned.

Vice Mayor Williams mentioned they need to make a good faith effort to move it forward for grant funding as this would be the third iteration they are considering so she would like to see the dual plans move forward.

Mr. McMurray confirmed dual plans are possible if it is the consensus of the Council and the community can provide input.

Vice Mayor Williams expressed concern if the community likes the newer concept and then they find out it is not viable.

Mr. McMurray expressed that he understands the concern and believes if there is community and political support, where there is will, there is a way. He mentioned it would be premature without community support to engage stakeholders.

Vice Mayor Williams inquired if this plan is going to be presented to the community or the newer concept which Mr. McMurray confirmed would not be this plan but a completely different plan.

Councilmember Shaw expressed she would like it mentioned to the community when presented in July that this is a concept and they do not know whether there would be support for it; it may not be something the City can do if there are roadblocks or something that could stop it.

Mr. McMurray agreed.

No public comments were submitted.

## 8) CLOSED SESSION

Mayor Meadows announced the closed session items and indicated after closed session the meeting would be adjourned, and the next regular meeting will be held July 11, 2023 at 6:30pm in the Oakley City Council Chambers.

**8.1 CONFERENCE WITH LEGAL COUNSEL-ANTICIPATED LITIGATION**
**Significant exposure to litigation pursuant to paragraph (2) of subdivision (d) of Section 54956.9: Letter dated May 25, 2023 received from Electronic Frontier Foundation and ACLU of Northern California concerning use of automated license plate readers**

**8.2 CONFERENCE WITH LEGAL COUNSEL-EXISTING LITIGATION**

**County of Contra Costa et al. (and City of Oakley) v. Monsanto Company et al., Contra Costa Sup. Ct. Case No. C22-02818**

**Schaefers v. BNSF Railway Company et. al. (and City of Oakley), Contra Costa Sup. Ct. Case Nos. C22-01552 and C22-01555**

**McCalister v. Moeckel at al. (and City of Oakley), Contra Costa Sup. Ct. Case No. C23-00834**

**City of Oakley v. Scelsi, Contra Costa Sup. Ct. Case No. MSN16-1620**

## 9) ADJOURN

There being no further business, the meeting was adjourned at 10:40 p.m.

Respectively Submitted,

Libby Vreonis
City Clerk

MEMORANDUM

OAKLEY
CALIFORNIA

**Date:** June 14, 2023
**To:** Mayor and City Councilmembers
**From:** Derek P. Cole, City Attorney
**CC:** Joshua McMurray, City Manager
**Subject:** Closed Session Report-Out Memo

**For Consideration at the City Council Meeting of July 11, 2023**

## Background and Analysis

The City Council considered the following closed session items during its regular meeting held June 13, 2023:

### CONFERENCE WITH LEGAL COUNSEL-ANTICIPATED LITIGATION

Significant exposure to litigation pursuant to paragraph (2) of subdivision (d) of Section 54956.9: Letter dated May 25, 2023 received from Electronic Frontier Foundation and ACLU of Northern California concerning use of automated license plate readers.

### CONFERENCE WITH LEGAL COUNSEL-EXISTING LITIGATION

Pursuant to Government Code Section 54956.9.

*County of Contra Costa et al. (and City of Oakley) v. Monsanto Company et al.,* Contra Costa Sup. Ct. Case No. C22-02818

*Schaefers v. BNSF Railway Company et al. (and City of Oakley),* Contra Costa Sup. Ct. Case Nos. C22-01552 and C22-01555

*McCallister v. Moeckel et al. (and City of Oakley),* Contra Costa Sup. Ct. Case No. C23-00834

*City of Oakley v. Scelsi,* Contra Costa Sup. Ct. Case No. MSN16-1620

Direction was provided to staff. There was no reportable action.

## Fiscal Impact

None.

## Recommendation

Receive and file this report.

## Attachments

None.

**ORDINANCE NO. 5-23**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF OAKLEY APPROVING A REZONE TO DECREASE THE ACREAGE AND AMEND AN EXISTING P-1 (PLANNED UNIT DEVELOPMENT) DISTRICT FOR THE PROJECT KNOWN AS MACHADO LANE SUBDIVISION 9615 (RZ 06-21) APNS 033-190-003 AND 033-190-004**

**FINDINGS**

**WHEREAS,** on November 23, 2021 Paul Manyisha of MLC Holdings ("Applicant") filed an application, which has since been amended, requesting approval of the following four entitlements ("Project"):

- Rezone (RZ 06-21) to decrease the acreage of and amend an existing P-1 District;
- Vesting Tentative Map (TM 03-21) subdividing approximately 20.11 acres into 76 single family residential lots, street right of ways, pocket park with playground, stormwater detention treatment area, and emergency vehicle access;
- Final Development Plan (FDP 01-21) in conjunction with the project's P-1 District; and
- Design Review (DR 10-21) for floor plans and architecture, and conceptual landscape plans.

Proposed homes consist of one single-story and three two-story house plans each with three elevations ranging from 2,350 to 3,247 square feet of livable area. The project site is located west of Machado Lane and south of East Cypress Road and is zoned P-1 (Planned Unit Development) District. (APNs: 033-190-003 and 033-190-004); and

**WHEREAS,** the proposal complies with the requirements of the rezoning application requirements of Section 2.4.012 (a) of the Oakley Municipal Code; and

**WHEREAS,** the Applicant has initiated a project to decrease the acres and amend an existing P-1 (Planned Unit Development) District that was originally approved in conjunction with Tentative Map 9015, which expired on October 11, 2022; and

**WHEREAS,** pursuant to the requirements of the California Environmental Quality Act ("CEQA"), the City prepared a Draft Initial Study/Mitigated Negative Declaration ("IS/MND"). The Notice of Intent ("NOI") to Adopt an MND and IS was circulated for public review and comment from November 3, 2022 to December 5, 2022. It was filed with the County Clerk and Governor's Office of Planning and Research ("OPR"), emailed or mailed out to over 60 public agencies and parties requesting such notice, and posted in the same

manner as a Notice of Public hearing, which is at locations throughout the City and at the project site; and

**WHEREAS,** on or before June 2, 2023, the Notice of Public Hearing for the Project was duly noticed in the Contra Costa Times, a newspaper of general distribution, was posted at the Project site, at Oakley City Hall located at 3231 Main Street, outside the gym at Delta Vista Middle School located at 4901 Frank Hengel Way, and outside the library at Freedom High School located at 1050 Neroly Road, and was mailed out to all owners of property within a 500-foot radius of the project's boundaries, to parties requesting such notice, and to outside agencies; and

**WHEREAS,** on June 13, 2023, the City Council adopted the Project's CEQA IS/MND in conjunction with approval of the proposed Tentative Map (TM 03-21, Final Development Plan (FDP 01-21), and Design Review (DR 10-21); and

The City Council of the City of Oakley does ordain as follows:

SECTION 1. Findings

A. Pursuant to Section 2.4.012 of the Oakley Municipal Code, the City Council of the City of Oakley hereby finds and determines as follows:

1. The change proposed will comply with the General Plan in that the proposed rezone to decrease the acres and amend the existing P-1 District will not result in a use or density that is not in line with the underlying General Plan Land Use Designation of Residential Low (RL); and

2. The uses authorized or proposed in the land use district are compatible within the district and to uses authorized in adjacent districts in that the proposed Rezone does not necessarily change the existing zoning, only amends it due to the nature of the P-1 District being tied to a specific project, in this case an expire Tentative Map and Final Development Plan; and

3. Community need, but not necessarily future financial success, has been demonstrated for the use proposed in that the Project will result in the construction of additional housing units, which is necessary to meet demand in the community since the City of Oakley falls under the jurisdiction of the Association of Bay Area Governments (ABAG), and ABAG uses a predominately demographic formula to allocate the regional housing needs among the incorporated cities and unincorporated county. This process results in a Regional Housing Needs Assessment (RHNA) and the number reflected in that assessment becomes part the City of Oakley's estimated housing needs. The development of this project will help the City meet its regional fair share housing goal.

B. Pursuant to Section 9.1.1002 Planned Unit Development (P-1) of the Oakley Municipal Code, the City Council of the City of Oakley hereby finds and determines as follows:

1. The Applicant has stated they plan to pursue development of the site within wo years of the rezone becoming effective if market conditions support it; and

2. The density and type of development is consistent with the General Plan, and the project integrates connectivity to other new developments, such as Emerson Ranch and Delaney Park north of East Cypress Road. The internal road network plans for future continued growth to the west and south of the site; and

3. The type of development is expected to be desirable in that it includes a variety of homes sizes with larger than conventional rear yard setbacks, and development includes a small tot lot pocket park. It falls somewhere in the middle of the density ranges of nearby residential neighborhoods; and

4. The development of a harmonious, integrated plan justifies exceptions from the normal application of the OMC due to the significant requirement for dedication along East Cypress Road, the half width dedication along Machado Lane, and the approximately 75,000 square feet occupied by Parcel A for the stormwater detention/bioretention and pocket park, the P-1 District is justified to allow for project-specific development regulations in order to design a feasible project within the allowable range of the General Plan land use designation of RL.

SECTION 2. Property Defined and Rezoned

A. 20.11 acres of real property located at the southwest corner of East Cypress Road and Machado Lane, Oakley, CA 94561 (APNs 033-190-003 and 033-190-004).

SECTION 3. California Environmental Quality Act (CEQA) Finding

Pursuant to California State Law, an Initial Study was conducted by the Planning Division to evaluate the potential effects of this project upon the environment. The Initial Study analysis found there were no potentially significant impacts, and therefore a Mitigated Negative Declaration was prepared. Based upon the findings contained in the Initial Study it has been determined that this project will not have a significant impact upon the environment.

SECTION 4. Severability

If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, the remainder of the ordinance, including the application of such part or

provision to other persons or circumstances shall not be affected thereby and shall continue in full force and effect. To this end, the provisions of this ordinance are severable. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause, or phrase thereof, irrespective of the fact that any one or more sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases may be held unconstitutional, invalid or unenforceable.

SECTION 5. Effective Date and Posting

This ordinance shall take effect and be in force thirty (30) days from and after the date of its passage. The City Clerk shall cause the ordinance to be published within fifteen (15) days after its passage in a newspaper of general circulation, or by publishing a summary of the proposed ordinance, posting a certified copy of the proposed office in the City Clerk's Office at least five (5) days prior to the City Council meeting at which the ordinance is to be adopted, and within fifteen (15) days after its adoption, publishing a summary of the ordinance with the names of the Council Members voting for and against the ordinance.

**PASSED AND ADOPTED** by the City Council of the City of Oakley this 11th day of July 2023 by the following vote:

AYES:
NOES:
ABSTENTIONS:
ABSENT:

APPROVED:

_____
Aaron Meadows, Mayor

ATTEST:

_____
Libby Vreonis, City Clerk

_____
Date

# ORDINANCE NO. 6-23

## AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF OAKLEY UPDATING MITIGATION FEES IMPOSED TO IMPLEMENT THE EAST CONTRA COSTA COUNTY HABITAT CONSERVATION PLAN / NATURAL COMMUNITY CONSERVATION PLAN

## *RECITALS*

The City Council of the City of Oakley does ordain as follows:

SECTION I. Summary

This ordinance provides for the adoption of fees to be used for the conservation of habitat for covered species in mitigation of the impacts of development in eastern Contra Costa County and procedures to implement the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan.

SECTION II. Authority

This ordinance is enacted pursuant to the Mitigation Fee Act (Gov. Code, § 66000 et seq.) and Article 11, section 7 of the California Constitution.

SECTION III. Notice and Hearing

This ordinance was adopted pursuant to the procedure set forth in Government Code sections 54986, 66016.5, and 66017-66018, and all required notices have been properly given and public hearing held.

SECTION IV. Definitions

As used in this ordinance:

A. "Affected Development Projects" means the development projects to which this ordinance applies, as set forth in Section V of this ordinance.

B. "Covered species" means those species of plants and animals whose conservation and management are provided for by the HCP/NCCP for which limited take is authorized pursuant to the state and federal permits.

C. "Development Fee" means the fee described in Chapter 9.3.1 of the HCP/NCCP and imposed on development projects pursuant to Section VIII.A of this ordinance.

D. "Development Fee Zones" means the three areas depicted as Zones I, II, and III on the map attached hereto as **Exhibit A** and in the detailed map data used to create **Exhibit A**, both of which are incorporated herein by reference and attached to the ordinance codified in this section. The Development Fee imposed on a development project is determined based on the Development Fee Zone in which the project is located.

E. "Development project" means any project undertaken for the purpose of development, including a project involving the issuance of a permit for construction or reconstruction, but not a permit to operate.

F. "HCP/NCCP" means the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan, approved by the Board of Supervisors on December 19, 2006, as may be revised from time to time.

G. "HCP/NCCP implementation fees" means the Development Fee and the Wetland Mitigation Fee.

H. "Implementing Agreement" means the January 22, 2007, Implementing Agreement for the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan by and between East Contra Costa County Habitat Conservancy, County of Contra Costa, City of Pittsburg, City of Clayton, City of Oakley, City of Brentwood, Contra Costa County Flood Control and Water Conservation District, East Bay Regional Park District, United States Fish and Wildlife Service, and California Department of Fish and Game.

I. "Implementing Entity" means the East Contra Costa County Habitat Conservancy, a joint exercise of powers agency formed by the County and the cities of Brentwood, Clayton, Oakley, and Pittsburg to oversee the implementation of the HCP/NCCP.

J. "Jurisdictional Wetlands and Waters" means State and federally regulated wetlands and other water bodies that cannot be filled or altered without permits from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. § 1251 et seq.), from the State Water Resources Control Board under either section 401 of the Clean Water Act or the Porter-Cologne Water Quality Act (California Water Code, § 13000 et seq.), or from the California Department of Fish and Game under section 1602 of the California Fish and Game Code, as further explained in Chapter 1.3.5 of the HCP/NCCP.

K. "Project applicant" means a property owner, or duly designated agent of the property owner, who has submitted to the City a request for approval of a development project on the property.

L. "Public facilities" includes public improvements, public services, and community amenities.

M. "State and federal permits" means the permit issued by the California Department of Fish and Game to the City and other local agencies on August 6, 2007, authorizing take of covered species pursuant to the HCP/NCCP and the Natural Community Conservation Planning Act (permit number 2835-2007-01-03), and the permit issued by the United States Fish and Wildlife Service to the City and other local agencies on July 25, 2007, authorizing incidental take of covered species pursuant to the HCP/NCCP and the

federal Endangered Species Act (permit number TE160958-0), as those documents may be amended from time to time.

N. "Take" has the same meaning provided by the federal Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.) ("FESA") and its implementing regulations with regard to activities subject to that Act, and also has the same meaning provided in the California Fish and Game Code with regard to activities subject to the California Endangered Species Act (Fish & G. Code, § 2050 et seq.) and the Natural Community Conservation Planning Act (Fish & G. Code, § 2800 et seq.). Specifically, take is defined in FESA to mean "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 U.S.C. § 1532(18)) and in California Fish and Game Code section 86 as "to hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, capture, or kill."

O. "Urban Development Area" means the areas designated for urban development that are either (1) within the area designated as the "Initial Urban Development Area" as generally depicted on the map attached hereto as **Exhibit B**, incorporated herein by reference and attached to the ordinance codified in this section, or (2) areas added to or removed from the Initial Urban Development Area according to the procedures set forth in Section 3.50 of the Implementing Agreement.

P. "Wetland Mitigation Fee" means the fee described in Chapter 9.3.1 of the HCP/NCCP and imposed on development projects pursuant to Section VIII.B of this ordinance.

SECTION V. Application of Ordinance

A. This ordinance applies to all development projects within the City of Oakley that are within the Urban Development Area except for the following:

1. Any development project that will permanently disturb less than one acre. The "acreage of land permanently disturbed" by a project, as that term is defined in Chapter 9.3.1 of the HCP/NCCP, shall be determined by the Community Development Director or his designee.

2. Any development project that the Community Development Director or his designee determines is contained entirely within an area mapped as urban, turf, landfill, and/or aqueduct land cover types in the HCP/NCCP, as generally depicted on **Exhibit A** and in the map data used to create **Exhibit A**.

3. Any development project of a type not covered by the HCP/NCCP within the Urban Development Area, as set forth in Chapter 2.3.1 of the HCP/NCCP.

4. Development projects with vested rights pursuant to an agreement by and between the project applicant and the City.

5. Development projects exempt under any provision of law.

6. Development projects where the City determines based on written evidence submitted by the project applicant that application of the ordinance would deprive the project applicant of all reasonable economic use of the property in violation of federal or state constitutional prohibitions against the taking of property without just compensation.

B. The development projects to which this ordinance applies, as set forth above, may be referred to as the "Affected Development Projects."

SECTION VI. Purpose of Fees; Use of Fee Revenue

A. The purpose of the Development Fee is to mitigate for impacts to open space, habitat and species covered by the HCP/NCCP. The Development Fee revenues will be used to fund the acquisition of land that does or could provide habitat for covered species, the management and enhancement of that land and habitat, and the administrative actions necessary to accomplish these tasks, as more particularly set forth in the HCP/NCCP, incorporated herein by reference.

B. The purpose of the Wetland Mitigation Fee is to mitigate for impacts to Jurisdictional Wetlands and Waters, riparian woodland/scrub, or stream buffers. The Wetland Mitigation Fee revenues will be used to fund the restoration, creation and management of Jurisdictional Wetlands and Waters and riparian woodland/scrub, and the administrative actions necessary to perform these tasks, as more particularly set forth in the HCP/NCCP.

SECTION VII. Findings

The City Council of the City of Oakley finds and determines as follows:

A. There is a need to establish a comprehensive framework to protect and conserve species, wetlands, natural communities, and ecosystems in East Contra Costa County, while improving and streamlining the environmental permitting process for impacts of future development on rare, threatened, and endangered species.

B. To meet the need identified in Section VII.A, the City participated as a member of the East Contra Costa County Habitat Conservation Plan Association, a joint exercise of powers authority, to develop the HCP/NCCP and the Implementing Agreement. The City Council finds that the HCP/NCCP, implemented in accordance with the Implementing Agreement, will provide comprehensive species, wetlands, and ecosystem conservation and contribute to the recovery of endangered species within East Contra Costa County; balance open space, habitat, and urban development; reduce the cost and increase the clarity and consistency of federal and state permitting; consolidate and streamline these processes into one, locally controlled plan; encourage, where appropriate, multiple uses of protected areas; share the costs and benefits of the HCP/NCCP as widely and equitably as possible; and protect the rights of private property owners.

C. Adoption and implementation of this Ordinance will enable the City to promote the health, safety and welfare of all of its residents by helping to achieve the conservation goals set forth in the HCP/NCCP, to implement the associated Implementing Agreement,

and to preserve the ability of affected property owners to make reasonable use of their land consistent with the requirements of the National Environmental Policy Act, the California Environmental Quality Act, the Federal Endangered Species Act, the California Endangered Species Act, the California Natural Community Conservation Planning Act, and other applicable laws.

D. Based on the HCP/NCCP and the data and analyses referenced therein, there is a reasonable relationship between the use of the HCP/NCCP implementation fees and the type of development projects subject to the fees. The Development Fee will be used to implement the HCP/NCCP by funding the acquisition of land, the enhancement and management of habitat, and the other public facilities identified in Section VI.A in order to mitigate for impacts to open space, habitat, and covered species caused by Affected Development Projects. The Wetland Mitigation Fee will be used to implement the HCP/NCCP by funding the restoration, creation, and management of Jurisdictional Wetlands and Waters and riparian woodland/scrub, and the other public facilities identified in Section VI.B in order to mitigate for impacts to Jurisdictional Wetlands and Waters and riparian areas caused by Affected Development Projects. The HCP/NCCP implementation fees will not apply to all types of development projects, but only to those that impact open space, habitat suitable for one or more covered species, Jurisdictional Wetlands and Waters, or riparian areas. In this way, the HCP/NCCP implementation fees will be used only for purposes reasonably related to the types of development projects that will be subject to the fees.

E. Based on the HCP/NCCP and the data and analyses referenced therein, there is a reasonable relationship between the need for the public facilities to be funded by the HCP/NCCP implementation fees and the type of development projects on which the fees are imposed because the need for these facilities, which include the acquisition of land and the management, enhancement, restoration, and creation of habitat, arises from the development projects to which the fees will apply, i.e., development projects of all types that disturb open space, habitat, Jurisdictional Wetlands and Waters or riparian areas.

F. Based on the HCP/NCCP and the data and analyses referenced therein, there is a reasonable relationship between the amount of the HCP/NCCP implementation fees and the cost of the public facilities or portion of the public facilities attributable to the development projects on which the fees will be imposed. The costs of the public facilities needed to mitigate cumulative impacts from development projects subject to the fees were estimated by projecting the extent of future development impacts, calculating the open space or habitat acreage to be acquired, managed, enhanced, restored, and created to offset these impacts, and estimating the overall costs of acquiring and preserving this acreage for the 30-year term of the state and federal permits. The fees were then calculated based on these costs, as follows:

1. The method of calculating the Development Fee amount for individual Affected Development Projects reflects the cost of the public facilities attributable to individual Affected Development Projects based on:

a. Area of the Affected Development Project, as the cost of acquiring sufficient open space or habitat land to mitigate for the impacts of a particular development project is directly proportional to the acreage of that project; and

b. Location of the Affected Development Project, as the need for the public facilities varies in proportion to the intrinsic habitat or open space value of the land impacted by the project. Thus, fees are tiered so that the highest fee amounts are imposed in Development Fee Zone II, which is deemed to have the highest intrinsic value per acre. A fee equal to 50 percent of the highest fee amount is imposed in Development Fee Zone I, which is deemed to have substantial but lower intrinsic value per acre, and a fee equal to 25 percent of the highest fee amount is required in Development Fee Zone III, which is deemed to have the lowest intrinsic value per acre.

2. The method of calculating the Wetland Mitigation Fee amount for individual Affected Development Projects reflects the cost of the public facilities attributable to those individual Affected Development Projects based on:

a. Type of Jurisdictional Wetlands and Waters and riparian woodland/scrub to be impacted by the Affected Development Project, as the type of Jurisdictional Wetlands and Waters and riparian woodland/scrub to be restored or created must effectively replace the type being impacted by the particular project. The cost of restoring or creating Jurisdictional Wetlands and Waters and riparian woodland/scrub depends on (1) the specific construction tasks necessary to restore or create these areas and (2) the different mitigation ratios applicable to the restoration or creation of various types of Jurisdictional Wetlands and Waters and riparian woodland/scrub, these ratios having been established in the HCP/NCCP to require relatively more restoration or creation of those types of Jurisdictional Wetlands and Waters and riparian woodland/scrub that have a higher habitat value and function for covered species and/or are more difficult to restore or create, and therefore must be restored or created in larger amounts to offset the anticipated failure of a portion of the acreage restored or created; and

b. Area of Jurisdictional Wetlands and Waters and riparian woodland/scrub to be impacted by the Affected Development Project, as the cost of restoring or creating Jurisdictional Wetlands and Waters and riparian woodland/scrub is directly proportional to the acreage being restored or created, which in turn is directly proportional to the acreage being impacted by the project.

SECTION VIII. HCP/NCCP Implementation Fees

HCP/NCCP implementation fees are hereby adopted to fund the public facilities identified in Section VI of this ordinance, as follows:

A. Development Fee

1. Except as otherwise provided in Sections VIII.D and VIII.F of this ordinance, a Development Fee shall be imposed upon and collected from any and all Affected Development Projects for each acre of land permanently disturbed, as follows:

| Location of Affected Development Project | Development Fee |
|---|---|
| Development Fee Zone I | $19,871.91 per acre |
| Development Fee Zone II | $39,743.83 per acre |
| Development Fee Zone III | $9,935.96 per acre |

2. The Community Development Director, or his designee, shall determine in which of the three Development Fee Zones an Affected Development Project is located, pursuant to **Exhibit A** and the map data used to create **Exhibit A**.

3. The Development Fee for each Affected Development Project shall be calculated by multiplying the fee for the applicable Development Fee Zone by the acreage of the site permanently disturbed by the Project, as determined by the Community Development Director or his designee pursuant to Chapter 9.3.1 of the HCP/NCCP.

4. Upon or before the issuance of a grading permit or, if no grading permit is issued, upon or before issuance of a building permit, the project applicant shall either (1) pay the entire Development Fee or, (2) with the prior written approval of the City, pay at least 67 percent of the Development Fee and execute an agreement with the City, in a form approved by City Attorney, to provide additional funding payments through assessments on the subject parcels or other mechanisms, provided that assessments or other funding mechanisms are legally authorized for this purpose and approved by the Implementing Entity, pursuant to the requirements of Chapter 9.3.1 of the HCP/NCCP.

5. The Development Fee amount applicable to an Affected Development Project shall be the Development Fee amount in effect at the time a grading permit is issued or, if no grading permit is issued, at the time the first building permit is issued for the project. Notwithstanding the foregoing, a project applicant may request to pay the Development Fee in a calendar year prior to the calendar year in which the grading permit or first building permit is issued. This request may be granted by the Community Development Director or his designee only in accordance with Section 13.2.2.1 of the Implementing Agreement and Chapter 9.3.1 of the HCP/NCCP. If such request is granted, the applicable Development Fee shall be the Development Fee in effect during the calendar year in which the fee is to be paid, including any adjustments made pursuant to Section IX of this ordinance.

B. Wetland Mitigation Fee

1. Except as otherwise provided in Sections VIII.E and VIII.F of this ordinance, in addition to a Development Fee, a Wetland Mitigation Fee shall be imposed upon and collected from any and all Affected Development Projects that will fill, dredge, or remove Jurisdictional Wetlands and Waters or riparian woodland/scrub, and from any and all Affected Development Projects that have been granted an exception to the stream setback established pursuant to Conservation Measure 1.7 of the HCP/NCCP.

2. The Wetland Mitigation Fee applicable to Affected Development Projects that will fill, dredge, or remove Jurisdictional Wetlands and Waters or riparian woodland/scrub varies by the land cover type impacted by those projects. The Community Development Director or his designee shall determine which of the land cover types will be impacted by an Affected Development Project and the corresponding fee amounts in accordance with **Exhibit C**, incorporated herein by reference and attached to the ordinance codified in this section, and in accordance with Chapter 9.3.1 of the HCP/NCCP. The Wetland Mitigation Fee applicable to an Affected Development Project that has been granted an exception to the stream setback shall be determined by the Community Development Director or his designee based on the acreage of setback encroachment, in accordance with Chapter 9.3.1 of the HCP/NCCP and **Exhibit C**.

3. Upon or before the issuance of a grading permit or, if no grading permit is issued, upon or before issuance of a building permit, the project applicant shall pay the Wetland Mitigation Fee determined for the Affected Development Project.

4. The Wetland Mitigation Fee amount applicable to an Affected Development Project shall be the Wetland Mitigation Fee amount in effect at the time a grading permit is issued or, if no grading permit is issued, at the time the first building permit is issued for the project. Notwithstanding the foregoing, a project applicant may request to pay the Wetland Mitigation Fee in a calendar year prior to the calendar year in which the grading permit or first building permit is issued. This request may be granted by the Conservation and Development Director or his designee only in accordance with Section 13.2.2.1 of the Implementing Agreement and Chapter 9.3.1 of the HCP/NCCP. If this request is granted, the applicable Wetland Mitigation Fee shall be the Wetland Mitigation Fee in effect during the calendar year in which the fee is to be paid, including any adjustments made pursuant to Section IX of this ordinance.

C. Condition of Approval

1. Compliance with this ordinance, including but not limited to the payment of the fees specified herein, as applicable, shall be a condition of approval of all Affected Development Projects.

D. Dedications

1. On a case-by-case basis, and upon a voluntary offer by the project applicant, the City may accept a dedication of land in lieu of some or all of the Development Fee that would otherwise be imposed upon a development project. Any offer of dedication may be considered for acceptance only if the land dedication is determined by the Implementing Entity to be consistent with the HCP/NCCP and Implementing Agreement. The amount of the Development Fee for which the dedication would substitute shall be determined by the Implementing Entity pursuant to Section 13.2.2.2 of the Implementing Agreement and Chapters 8.6.7 and 9.3.1 of the HCP/NCCP.

2. If required to comply with the Stay Ahead provision set forth at Chapter 8.6.1 of the HCP/NCCP and Section 9.2 of the Implementing Agreement, the City may require that some or all Affected Development Projects offer a dedication of land in lieu of some or all of the Development Fee that would otherwise be imposed.

E. Creation/Restoration of Habitat

1. On a case-by-case basis, and upon a voluntary offer by the project applicant, the City may accept the restoration or creation of Jurisdictional Wetlands and Waters or riparian woodland/scrub in lieu of some or all of the Wetland Mitigation Fee that would otherwise be imposed on an Affected Development Project. The offer of restoration or creation of Jurisdictional Wetlands and Waters or riparian woodland/scrub in lieu of some all or a portion of the Wetland Mitigation Fee may be considered for acceptance only if the restoration or creation is determined by the Implementing Entity to be consistent with the HCP/NCCP and Implementing Agreement. The amount of the Wetland Mitigation Fee for which such restoration or creation would substitute shall be determined by the Implementing Entity pursuant to Conservation Measures 2.1 and 2.2 and Chapter 9.3. l of the HCP/NCCP.

F. Separate Take Authorization

1. On a case-by-case basis, a project applicant that possesses separate and final approval from the United States Fish and Wildlife Service and/or California Department of Fish and Wildlife for incidental take of all federally or state listed species that may be adversely affected by the development project may apply to the City to pay a fee, the amount to be negotiated by the project applicant with the Implementing Entity, to support the conservation of habitat and open space under the HCP/NCCP in lieu of the HCP/NCCP implementation fees. If the Community Development Director or his designee determines that the mitigation and conservation requirements under the separate approval are equivalent to or exceed what would be required under this ordinance, the City may determine that no further fees are required for purposes of complying with the HCP/NCCP, in which case the HCP/NCCP implementation fees described herein shall not be required of the project.

G. Fee Transmittal

1. All fees collected hereunder shall be transmitted to the County Auditor-Controller quarterly, within thirty (30) days of the end of the quarter within which the fee was collected, for deposit into a separate account or fund, and for investment, accounting and expenditure in accordance with the provisions of this ordinance, the HCP/NCCP, the Implementing Agreement, and the Mitigation Fee Act.

SECTION IX. Adjustments to Fees

The Development Fee and Wetland Mitigation Fee shall on March 15 of each year be automatically adjusted automatically as follows:

A. The Development Fee shall be adjusted as provided in **Exhibit D** and based on the formula in **Exhibit E**, as explained in Chapter 9.3.1 of the HCP/NCCP. As shown in **Exhibit D** and **Exhibit E**, both of which are incorporated herein by reference and attached to the ordinance codified in this section, one portion of the Development Fee amounts in effect before March 15 of each year shall be increased or decreased by the same percentage as the percentage of increase or decrease in the Office of Federal Housing Finance Agency Annual Home Price Index for the Oakland-Berkeley-Livermore, California Metropolitan Division for the 12-month period ending December 31. The remaining portion of the Development Fee amounts shall be increased or decreased by the same percentage as the percentage of increase or decrease in the Consumer Price Index for the San Francisco-Oakland-Fremont Combined Statistical Area (U.S. Bureau of Labor Statistics) for the 12-month period ending December 31.

B. The Wetland Mitigation Fee shall be adjusted as provided in **Exhibit D.** As shown in **Exhibit D,** the Wetland Mitigation Fee amounts in effect before March 15 of each year shall be increased or decreased by the same percentage as the percentage of increase or decrease in the Consumer Price Index for the San Francisco-Oakland-Fremont Combined Statistical Area Bureau of Labor Statistics) for the 12-month period ending December 31.

SECTION X. Take Authorization Application and Review Procedures

A. The City shall require project applicants for any and all Affected Development Projects to submit an application for take authorization to the Planning Division for review simultaneously with the submittal of the request for approval of the project. The Community Development Director may require that the application be submitted on one or more standard application forms. The application for take authorization must include the following information:

1. A description of the Affected Development Project, including maps, detailed information on the project footprint, extent of construction, and extent of any ongoing maintenance activities covered by the HCP/NCCP consistent with Chapter 2 of the HCP/NCCP.

2. One or more reports documenting the methods and results of planning surveys and the methods of applicable preconstruction surveys and construction monitoring, in accordance with Chapter 6 of the HCP/NCCP. The Community Development Director or his designee may allow specific components of the required surveys, including some or all of the results of planning surveys and the methods of applicable preconstruction surveys and construction monitoring, to be provided after the submittal of the initial application and prior to approval of the development project; however, the application for take authorization is not complete until all items in this Section X.A have been submitted.

3. Evidence of compliance or planned compliance with applicable avoidance and minimization measures, in accordance with Chapter 6 of the HCP/NCCP.

4. Quantification of the anticipated acreage of land permanently disturbed, consistent with Chapters 6.2 and 9.3.1 of the HCP/NCCP.

5. Estimated HCP/NCCP implementation fees due and/or documentation of proposed land dedication and/or proposed habitat restoration or creation, consistent with Section VIII of this ordinance.

6. Other information as directed by the Community Development Director in accordance with the HCP/NCCP.

B. The City may grant take authorization to a project applicant only upon satisfaction of all of the following conditions:

1. The application for take authorization is deemed by the Community Development Director to be complete.

2. The conditions of approval for the project require the project applicant to comply with all terms and conditions of the implementing Agreement, the HCP/NCCP, and the state and federal permits that apply to the project. These terms and conditions include but are not limited to the following:

a. Payment of the required HCP/NCCP implementation fees and/or approval by the City of an offer of land dedication and/or habitat restoration or creation, pursuant to the requirements of Section VIII of this ordinance.

b. Compliance with all relevant surveys, monitoring, avoidance, minimization and conservation measures determined by the Community Development Director to apply to the project, pursuant to Chapter 6 of the HCP/NCCP.

c. The City determines that extension of take authorization is consistent with the HCP/NCCP, implementing Agreement, the state and federal permits, and all applicable federal, state, and local laws and regulations.

## SECTION XI. Judicial Review

Any judicial action or proceeding to attack, review, set aside, void, or annul the fees established by this ordinance must be commenced within one hundred twenty (120) days after the effective date of this ordinance. Any action to attack an increase adopted pursuant to Section IX must be commenced within one hundred twenty (120) days after the effective date of the increase.

## SECTION XII. Repeal and Replacement of Existing Ordinance

A. Except as specified in this Section XII and Section XIII, below, City Council Ordinance No. 08-21 is hereby repealed and superseded by this ordinance, as of the effective date of this ordinance. However, this repeal does not affect any fees that were imposed prior to the effective date of this ordinance, which fees shall be paid and collected under the provisions of City Council Ordinance No. 08-21.

B. This ordinance shall supersede and repeal Article 7 of Chapter 2 of Title 9 of the Oakley Municipal Code.

SECTION XIII. Severability

If any individual component of the HCP/NCCP implementation fees or any provision of this ordinance is held invalid or unenforceable by a court of competent jurisdiction, that holding shall not affect the validity or enforceability of the remaining fee components and/or ordinance provisions, and the City Council declares that it would have adopted each part of this ordinance irrespective of the validity of any other part. Notwithstanding any other provision of this ordinance to the contrary, if a court of competent jurisdiction determines any fee set forth in Section VIII of this ordinance is invalid or unenforceable, the corresponding fee adopted by City Council Resolution No. 08-21 shall be deemed not to have been repealed and shall remain in effect and subject to the remaining provisions of this ordinance. Notwithstanding any other provision of this ordinance to the contrary, if a court of competent jurisdiction determines this ordinance is invalid or unenforceable, City Council Resolution No. 08-21 shall be deemed not to have been repealed and shall remain in full force and effect.

SECTION XIV. Effective Date

This ordinance becomes effective 60 days after passage, and within 15 days after passage shall be published once with the names of Councilmembers voting for or against it in the Contra Costa Times, a newspaper published in this County.

**PASSED AND ADOPTED** by the City Council of the City of Oakley this 11th day of July 2023 by the following vote:

AYES:
NOES:
ABSTENTIONS:
ABSENT:

APPROVED:

_____
Aaron Meadows, Mayor

ATTEST:

_____
Libby Vreonis, City Clerk

_____
Date

Exhibit A

Development Fee Zones
*(adapted from Figure 9-1 of the HCP/NCCP)*

Figure 9-1: Development Fee Zones

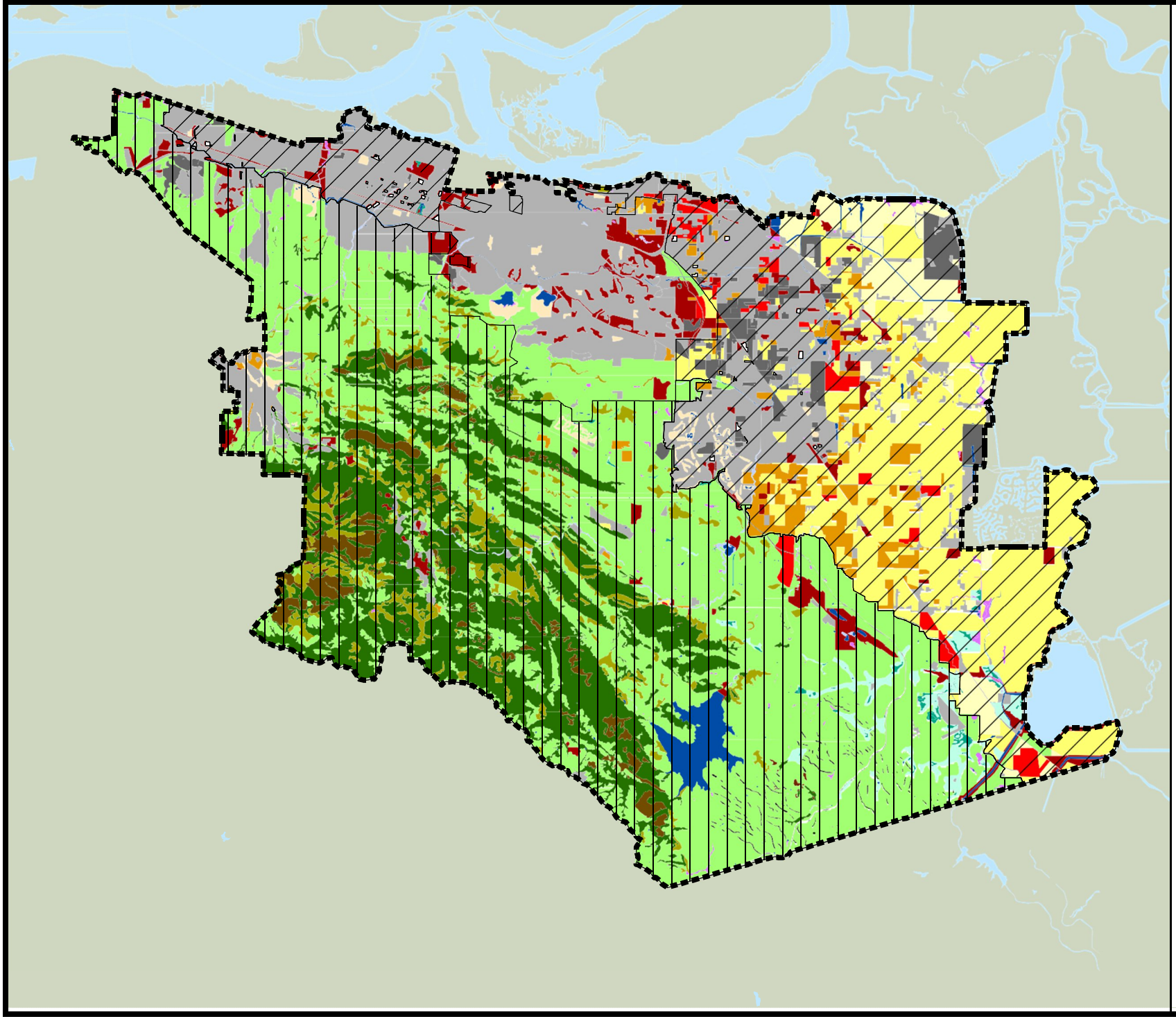
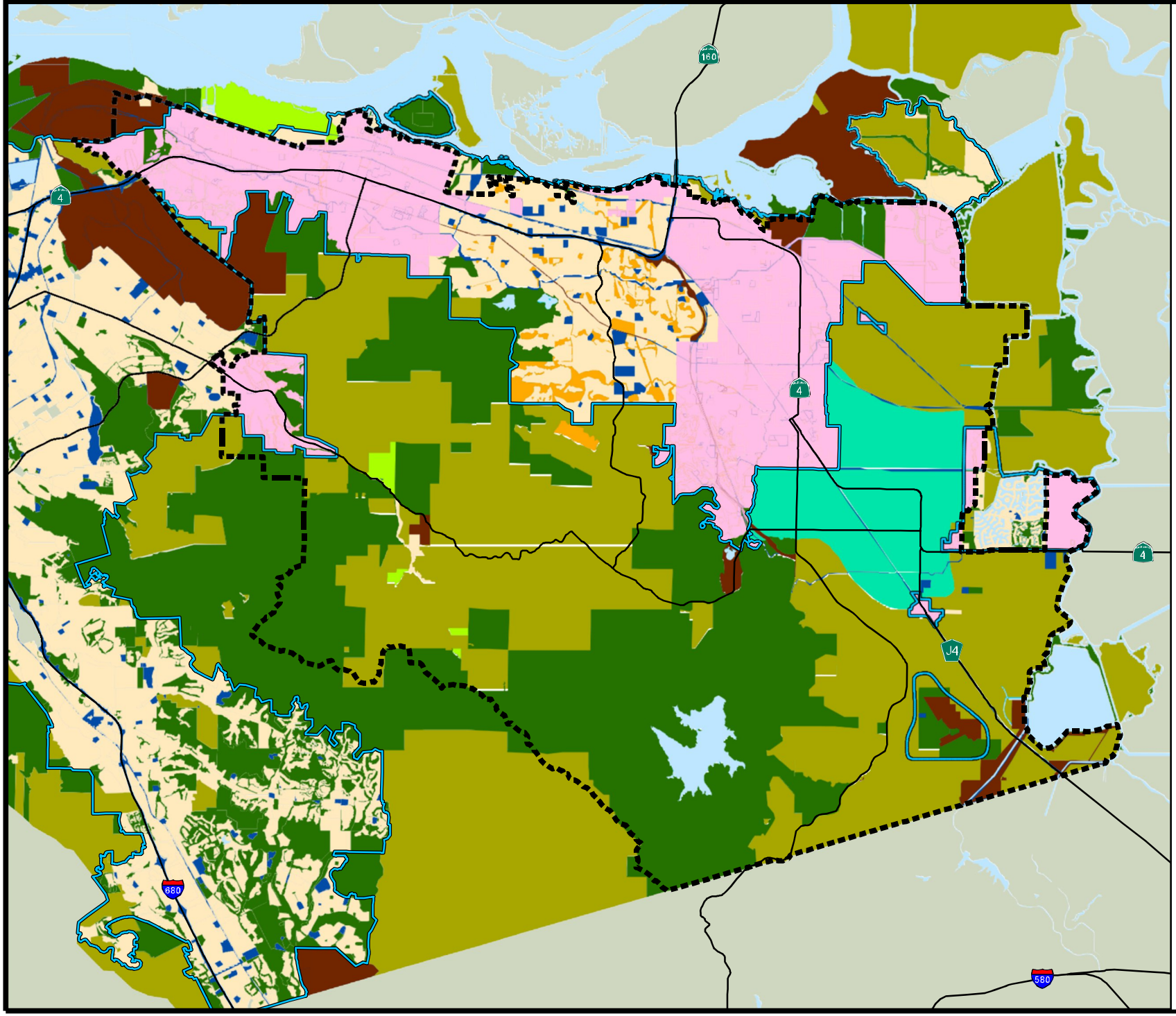


Exhibit B

Initial Urban Development Area
*(Figure 2-3 of the HCP/NCCP)*

Figure 2-3: Initial Urban Development Area




Legend

- Inventory Area
- County Urban Limit Line
- Initial Urban Development Area

**Land Use Designations * For Areas Outside Initial Urban Development Area**

- Agricultural Core
- Agriculture
- Development
- Open Space (Designated in General Plan)
- Parks, Public Watershed Lands, and Deed Restricted Open Space
- Urban Parks & Open Spaces (in Inventory Area)
- Public Facilities
- Public Facilities with Undeveloped Land
- Water

* Land Use Designations were derived from County and City General Plan Maps. Designations were combined to create a simpler map.

Miles

2 1 0 2

Jones & Stokes

## Exhibit C

### Wetland Mitigation Fee and Acreage Determination Methods

*(adapted from Table 9-5 of the HCP/NCCP to reflect the fee amounts applicable after the effective date of this Ordinance)*

| Land Cover Type | Fee per unit of Impact | Method for Determining Fee Boundary |
|---|---|---|
| Riparian woodland/scrub | $111,060.40/acre | Limit of tree or shrub canopy (drip line) |
| Perennial wetlands | $170,908.06/acre | Jurisdictional wetland boundary of state or federal government[1], whichever is greater |
| Seasonal wetland | $401,479.18/acre | Same as above |
| Alkali wetland | $405,871.63/acre | Same as above |
| Ponds | $221,421.23/acre | Jurisdictional waters boundary of state or federal government[1], whichever is greater |
| Aquatic (open water) | $110,711.14/acre | Wetted area during normal rainfall year or jurisdictional waters boundary, whichever is greater |
| Slough/channel | $156,815.09/acre | Area of impact within banks |
| Streams | | |
| Streams 25 feet wide or less | $580.00/linear foot | Stream length measured along stream centerline. Stream width measured between top of bank. |
| Streams greater than 25 feet wide[2] | $869.47/linear foot | Stream length measured along stream centerline. Stream width measured between top of bank. |

[1] **Using methods for determining state and federal jurisdictional wetlands and waters at the time of HCP/NCCP approval.**

[2] **Impact fee for wider streams is 1.5 times the base stream fee to account for higher construction costs on wider streams.**

## Exhibit D

### Fee Adjustment Indices

*(adapted from Table 9-7 of the HCP/NCCP to reflect the fee adjustment procedures applicable after the effective date of this Ordinance 2021-25)*

| Fee | Annual Adjustment Index[1] | Average Annual Rate (2006-2020) **Example** |
|---|---|---|
| Development Fee | | |
| Portion for Land Acquisition[2] (62.52 % initially[3]) | Change in the annual Home Price Index (HPI) for the Oakland-Berkeley-Livermore, CA Metropolitan Division (MSAD) for the prior calendar year (Office of Federal Housing Finance Agency)[4] | 3.85% |
| Portion for Preserve System Operation, Restoration, and Maintenance (37.48% initially[3]) | Change in the Consumer Price Index for the San Francisco-Oakland-Fremont Combined Statistical Area for all urban consumers for the prior calendar year (U.S. Bureau of Labor Statistics)[5] | 2.87% |
| Wetland Mitigation Fee | Change in the Consumer Price Index for the San Francisco-Oakland-Fremont Combined Statistical Area for all urban consumers for the prior calendar year (U.S. Bureau of Labor Statistics)[5] | 2.87% |

Note:

[1] HCP/NCCP fees to be adjusted automatically by March 15 of every year based on the indices for the prior calendar year. See Appendix G of the HCP/NCCP for more details on methodology and sources.

[2] Direct land acquisition costs only. Excludes costs associated with land transaction, site improvements, and due diligence (e.g., pre-acquisition surveys).

[3] The portion of the Development Fee that will be adjusted according to the HPI and CPI will vary over time. For the first annual automatic adjustment following the effective date of this Ordinance, 59.53% of the initial fees will be adjusted according to the HPI and 40.47% will be adjusted according to the CPI. The apportionment in subsequent years will depend on the relative values of the indices, in accordance with the formula provided in Exhibit E.

[4] See https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index-Datasets.aspx#atvolData. Data for the prior calendar year are published in March. To calculate automatic adjustments, the change in the HPI for the prior calendar year will be used.

[5] Consumer Price Index, All Items, with base data year of 1982-1984 (i.e., 1982-1984 = 100), for all urban consumers (CPI-U), not seasonally adjusted. See http://www.bls.gov/eag/eag.ca_sanfrancisco_msa.htm .

**Exhibit E**

**Automatic Development Fee Increase Formula**
*(adapted from Table 9-7 of the HCP/NCCP to reflect the fee amounts applicable after the effective date of this Ordinance)*

$Fee_n = [[L_{n-1} * (HPI_{n-1}/HPI_{n-2})] + [S_{n-1} * (CPI_{n-1}/CPI_{n-2})]] * Z$

Where:

n = year of HCP/NCCP Implementation [year 1 (n=l) is 2007, the calendar year in which the HCP/NCCP implementation ordinance was adopted; year 2 (n = 2) is 2008; etc. Year 0 (n=0) is 2006. Year 17 (n=17) is 2023.]

$Fee_n$ = Development Fee for year n (the Development Fee for yearn applies from March 15 of year n through March 14 of the following year)

$Fee_{17}$ = $39,743.83 for Zone II; $19,841.91 for Zone I; and $9,935.96 for Zone III

$L_n = [L_{n-1} * (HPI_{n-1}/HPI_{n-2})] * Z$

$L_{n-1}$ = Land acquisition portion of development fee for the year prior to year n

$L_{17}$ = 59.53% of $39,743.83 = $23,659.15

$HPI_{n-1}$ = Home Price Index (HPI) for the Oakland-Berkeley-Livermore, CA Metropolitan Division (MSAD) at the end of the calendar year prior to year n as published by the Office of Federal Housing Finance Agency

$S_n = [S_{n-1} * (CPI_{n-1}/CPI_{n-2})] * Z$

$S_{n-1}$ = Non-land acquisition portion of development fee for the year prior to year n

$S_{17}$ = 40.47% of $39,743.83 = $16,084.67

$CPI_{n-1}$ = Consumer Price Index for the San Francisco-Oakland-Fremont Combined Statistical Area for all urban consumers at the end of the calendar year prior to year n as published by U.S. Bureau of Labor Statistics

Z = Fee zone factor (based on which fee zone the project is in (see Figure 9-1 in the HCP)). The fee zone factors for the three zones are as follows:

Z = l for Zone II, the Natural Lands Zone

Z = 0.5 for Zone I, the agricultural lands zone

Z = 0.25 for Zone III, the infill zone

OAKLEY
CALIFORNIA

**DATE:** June 11, 2023

**TO:** Joshua McMurray, City Manager

**FROM:** Kevin Rohani, Public Works Director/City Engineer

Approved and Forwarded to the City Council

**SUBJECT:** Authorize the City Manager to Execute Amendment Number 1 to the Consulting Services Agreement with Callander Associates Landscape Architecture, Inc. for the Enrico Cinquini Park Construction Project Capital Improvement Project (CIP) Number 281

## Background and Analysis

The City's adopted Capital Improvement Program (CIP) Budget designates funding for various infrastructure repair and replacement projects. This is consistent with the City's goals to improve the quality of the City's public infrastructure and to enhance the quality of life for our residents. One of the key projects in the City's CIP is enhancing the park infrastructure in the community.

The new 4.5-acre Enrico Cinquini Park will be constructed at the northwest corner of the Rose Avenue/Carpenter Road intersection, adjacent to the new residential neighborhoods.

On October 11, 2022, the City Council awarded a landscape architectural design contract to Callander Associates Landscape Architecture, Inc. The initial budget for this project was $3.5M which included a $2.1M contribution from the developer of the Stonewood Subdivision adjacent to the site, and a $1.4M Park Impact Fee fund from the City. The design team has been working on this project design over the past several months and has evaluated several preliminary design concepts that would best suit this site and the community's needs.

At the conclusion of the preliminary design, it was determined that the initial funding is not sufficient to construct this park, its associated facilities and features that include a Picnic Area, Shade Structure, Splash Pad, Restroom, Playground, Natural Turf, and a Parking Lot.

Staff pursued additional funding for this project and have secured commitments from the California Legislators in Congress for $1.5M of Federal funding for this project. This is a big step forward on this project and shows the importance of this project by the California legislators.

With the additional funding secured for this project, staff negotiated with Callander Associates Landscape Architecture, Inc. for the cost of their design services for this project, to complete the preparation of the final design and construction documents.

Callander Associates Landscape Architecture, Inc. will be performing the final design services for this project along with their sub-consultants for an amount not to exceed $98,258, as outlined in the attached proposal and scope of work. Staff recommends incorporating these proposed services into the existing design contract by way of amendment to said contract.

It is anticipated that the design of this park will be completed by spring 2024 and construction will begin by summer 2024.

## Consistency with the Oakley Strategic Plan 27+

This item is consistent with the Strategic Plan 27+ Park and Open Space Goal.

## Fiscal Impact

Approval of this resolution will accept the proposal and authorize the City Manager to execute an Amendment to the agreement with Callander Associates Landscape Architecture, Inc. for a cost not to exceed $98,258. The funding for this project will be provided by the Park Impact Fee Fund, Developer contribution and a Federal grant.

## Staff Recommendation

Staff recommends that the City Council adopt the resolution approving the proposal from Callander Associates Landscape Architecture, Inc., and authorizing the City Manager to execute an Amendment to the Consulting Services Agreement with Callander Associations Landscape Architecture, Inc. for final design services related to the Enrico Cinquini Park Construction Project – CIP No. 281.

## Attachments

1. Resolution
2. Callander Associates Landscape Architecture, Inc. Proposal

**RESOLUTION NO. XX-23**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OAKLEY APPROVING AMENDMENT NUMBER 1 TO THE AGREEMENT WITH CALLANDER ASSOCIATES LANDSCAPE ARCHITECTURE, INC. FOR LANDSCAPE ARCHITECTURAL FINAL DESIGN SERVICES ASSOCIATED WITH ENRICO CINQUINI PARK CONSTRUCTION PROJECT, CAPITAL IMPROVEMENT PROJECT NUMBER 281 AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE AGREEMENT**

**WHEREAS**, as part of the Fiscal Year 2023/24 Budget, the City of Oakley approved a 5-Year Capital improvement Program (CIP); and

**WHEREAS**, Project Number 281 is to design the improvements for the Enrico Cinquini Park Construction Project; and

**WHEREAS,** after the completion of the preliminary design, it was determined that additional funding is needed for the construction of this project; and
**WHEREAS**, Callander Associates Landscape Architecture, Inc. has submitted a proposal to prepare final design for landscape architectural services for CIP Project Number 281 for an amount not to exceed $98,258; and

**NOW, THEREFORE, BE IT RESOLVED AND ORDERED**, that the City Council of the City of Oakley hereby approves the proposal with Callander Associates Landscape Architecture, Inc. for the preparation of landscape architectural final design services, and cost estimates for CIP Project Number 281 for an amount not to exceed $98,258, in the form attached hereto as Exhibit A, and authorizes the City Manager to execute the amendment into the agreement.

**PASSED AND ADOPTED** by the City Council of the City of this 11th day of July 2023 by the following vote:

AYES:
NOES:
ABSENT:
ABSTENTIONS:

APPROVED:

_____
Aaron Meadows, Mayor

ATTEST:

_____
Libby Vreonis, City Clerk

_____
Date

June 19, 2023

**ADDITIONAL SERVICES AUTHORIZATION #1**

**TO**: Mr. Kevin Rohani
Public Works Director
City of Oakley, Public Works Department
3231 Main Street, Oakley, CA 94561
925-625-7003
Rohani@ci.oakley.ca.us

**RE**: **ENRICO CINQUINI PARK/proposal for additional design services**

The original agreement and scope of work for the project was based upon the Landscape Concept Plan prepared by MSLA (dated March 2, 2021) as well as the $3.5M budget inclusive of soft costs and design fees. Since beginning the project, it was determined that the City wanted to go in a much different direction than the concept plan which would provide a more significant destination park for the community. The preferred concept plan, dated February 7, 2022, includes a much larger splash pad and play area, enlarged restroom and showers, and an on-site parking lot with lighting just to name the key features. The construction estimate, dated February 6, 2022, has also increased to $5.833M inclusive of design fees. This additional services authorization is for the additional design services required for the expanded scope of work.

The following additional services will be provided on this project in accordance with our agreement dated October 11, 2022 and are considered an amendment thereto:

***Scope***

**5.1.1** **Construction Documents**: Provide additional design services for the expanded scope of work and budget. This includes a larger splash pad and play area, enlarged restroom and showers, an on-site parking lot and lighting, and a new budget of $5.833M inclusive of design fees. These design services will be provided per the agreement and follow the same tasks.

***Compensation***

| | | |
|---|---|---|
| 5.1.1 | Construction Documents (lump sum) | $69,629 |
| | Freyer & Laureta, Inc (lump sum) | $21,989 |
| | SEC Engineers (lump sum) | $2,640 |
| Reimbursables | | $4000 |
| Fees | | $98,258 |
| **Total Estimated Compensation** | | **$98,258** |

**BURLINGAME**
1633 Bayshore Highway, Suite 133
Burlingame, CA 94010
650.375.1313

**GOLD RIVER**
12150 Tributary Point Drive, Suite 140
Gold River, CA 95670
916.985.4366

**SAN JOSE**
2025 Gateway Place, Suite 285
San Jose, CA 95110
408.275.0565

***Schedule***

Callander Associates will proceed to commence the above services upon receipt of a signed copy of this authorization concurrently with completion of our other services.

***Signatures***

Callander Associates Landscape Architecture, Inc.



Brian Fletcher, ASLA
Principal | Landscape Architect CA #4671

Agreed and authorized to proceed for:
*City of Oakley*

Signature date

Name & Title

Attachment: Task Matrix, dated June 19, 2023
ESTIMATED BUDGET FOR ENGINEERING DESIGN SERVICES - AMENDMENT #1, Dated 3/7/2023
SEC Proposal Parking Lot Lights, Dated January 20,2023
Standard Schedule of Compensation dated 2023
Preferred Concept Plan, dated February 7, 2023
Preferred Estimate of Probable Construction Cost, dated February 6, 2023

Notice: Landscape architects are licensed by the State of California.
Terms and conditions are subject to change after ninety days.


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Landscape Architecture, Inc.

# *Task Matrix- ASA #1*

**Enrico Cinquini Park Construction Project - CIP NO .281**

June 19, 2023

| | | ***Callander Associates' Personnel and Rates*** | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Principal @ $240 | | Proj Manager 1 @ $180 | | Designer 1 @ $148 | | Administrator @ $123 | | Construction Man. @ $183 | | CA Fees | | Freyer & Laureta Subconsultant Fees | BSK Subconsultant | SEC Subconsultant |
| Phase | Description | hrs | $'s | hrs | $'s | hrs | $'s | hrs | $'s | hrs | $'s | hrs | $'s | $'s | $'s | $'s |
| | | | | | | | | | | | | | | | | |
| ***2.0*** | ***Construction Documentation*** | | | | | | | | | | | | | | | |
| 2.01 | Construction Documents - 35% Submittal | 18.0 | $ 4,320.00 | 32.0 | $ 5,760.00 | 40.0 | $ 5,920.00 | 2.0 | $ 246.00 | 2.0 | $ 366.00 | 94.0 | $ 16,612.00 | $ - | $ - | $ - |
| 2.03 | Construction Documents - 65% Submittal | 12.0 | $ 2,880.00 | 46.0 | $ 8,280.00 | 80.0 | $ 11,840.00 | 3.0 | $ 369.00 | 4.0 | $ 732.00 | 145.0 | $ 24,101.00 | $ - | $ - | $ - |
| 2.05 | Construction Documents - 90% Submittal | 5.0 | $ 1,200.00 | 50.0 | $ 9,000.00 | 57.0 | $ 8,436.00 | 2.0 | $ 246.00 | 2.0 | $ 366.00 | 116.0 | $ 19,248.00 | $ - | $ - | $ - |
| 2.07 | Construction Documents - Bid Submittal | 3.0 | $ 720.00 | 20.0 | $ 3,600.00 | 32.0 | $ 4,736.00 | 2.0 | $ 246.00 | 2.0 | $ 366.00 | 59.0 | $ 9,668.00 | $ - | $ - | $ - |
| | **SUBTOTAL 3.0** | **38.0** | **$ 9,120.00** | **148.0** | **$ 26,640.00** | **209.0** | **$ 30,932.00** | **9.0** | **$ 1,107.00** | **10.0** | **$ 1,830.00** | **414.0** | **$ 69,629.00** | **$ 19,990.00** | **$ -** | **$ 2,400.00** |
| | Subconsultant Administration | | | | | | | | | | | | **10%** | **$ 1,999.00** | **$ -** | **$ 240.00** |

| | **hrs** | **CALA** | **Freyer + Laureta** | **BSK** | **SEC** |
|---|---|---|---|---|---|
| 2.0 Construction Documentation | 414.00 | $ 69,629.00 | $ 21,989.00 | $ - | $ 2,640.00 |
| Reimbursables | | $ 4,000.00 | $ - | $ - | $ - |
| TOTAL COMPENSATION | **414.00** | **$ 73,629.00** | **$ 21,989.00** | **$ -** | **$ 2,640.00** |
| **TOTAL** | | | | | **$ 98,258.00** |


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**ESTIMATED BUDGET FOR ENGINEERING DESIGN SERVICES - AMENDMENT #1**
**Enrico Cinquini Park, City of Oakley**

| TASKS | ESTIMATED LABOR (Hours) Personnel & Rates ($/hr) | | | | | TOTAL LABOR COST ($) |
|---|---|---|---|---|---|---|
| | F&L Administrative | 2-Man Survey Crew | F&L Staff Engineer II | F&L Project Manager | F&L Principal | |
| | 90 | 375 | 140 | 215 | 240 | |
| **Additional Parking Lot Design (including C3 provisions)** | | | | | | |
| Concept Development Plan 35% Submittal | | | 40 | 4 | 4 | $7,420 |
| Construction Documents - 65% Plan | | | 40 | 4 | 2 | $6,940 |
| Construction Documents - 90% Submittal | | | 16 | 1 | 2 | $2,935 |
| Construction Documents - Bid Submittal | | | 16 | 1 | 1 | $2,695 |
| **Total Labor Hours** | | | **112** | **10** | **9** | **$19,990** |

SACRAMENTO ENGINEERING CONSULTANTS

10555 Old Placerville Road
Sacramento, CA 95827
Phone: (916) 368-4468
FAX: (916) 368-4490
www.saceng.com
A California Corporation

MECHANICAL, ELECTRICAL & FIRE PROTECTION ENGINEERING SERVICES

January 20, 2023

Mr. Brian Fletcher, President
Callander Associates
1633 Bayshore Highway, Suite 133
Burlingame, CA 94010
bfletcher@callanderassociates.com
650-375-1313

We are pleased to confirm Oakley CIP NO 281 Enrico Cinquini Park Northwest corner of Rose Avenue/Carpenter Road SEC 22716 added scope as follows:

Parking lot lights for approximately 30 spaces

Design includes:

Power engineering for power to lights
Site lighting with point by point photometrics

Services include:

Preparation of concept, 35%, 90% and 100% drawings for architect and owner review
Preparation of construction drawings
Preparation of typed specifications
Title 24 energy compliance
Conferences
Incorporation of plan check comments

Services exclude:

Any scope and services not noted above
Bidding and Construction support
Trips to site during construction
Pre-bid and pre-construction meeting at site
As built drawings from contractor redline drawings
Creation of Punch lists

We are pleased to quote the above scope as follows:

Electrical engineering.....$2,400

Indicate acceptance of this proposal by signature below.

SIGNED

Rickert Henriksen
ME (M29,816), EE (E10,629)
FPE (FP01,497), LEED AP
President _____

# Standard Schedule of Compensation 2023 San Jose & Burlingame

## GENERAL

The following list of fees and reimbursable expense items shall be used in the provision of services described in the agreement. These amounts shall be adjusted in January, upon issuance of an updated Standard Schedule of Compensation:

### Hourly Rates

| | |
|---|---|
| Principal | $240 /hour |
| Senior Associate | $218 /hour |
| Associate | $208 /hour |
| Arborist/Construction Manager | $183 /hour |
| Senior Project Manager | $188 /hour |
| Project Manager 1 | $180 /hour |
| Project Manager 2 | $171 /hour |
| Job Captain | $158 /hour |
| Designer 1 | $148 /hour |
| Designer 2 | $135 /hour |
| Assistant Designer | $120 /hour |
| Accounting | $182 /hour |
| Senior Project Administrator | $138 /hour |
| Project Administrator | $123 /hour |

### Reimbursable Expenses Rates

| | |
|---|---|
| Expenses<br>*printing and reproductions, postage and delivery, mileage, travel expenses (hotel / food), testing and outside services, and other project related expenses* | cost + 15% |
| Communications and Insurance Surcharge | 2.5% of total fees |
| Subconsultant Administration | 10% of Subconsultant Costs |

## PAYMENTS

Payments are due within ten days after monthly billing. Callander Associates reserves the right to suspend services for non-payment if payment is not received within a period of 60 days after invoice date. Additionally invoices 60 days past due are subject to a 1.5% per month interest charge. Retainer amounts, if indicated, are due upon signing the agreement and shall be applied to the final invoice for the project.

prepared for the
**City of Oakley**

**Estimate of Probable Construction Costs**
**Enrico Cinquini Park**
**Preferred Concept Plan**

prepared on: 02/06/2023
prepared by: DC
checked by: BF & ZK

| Item # | Description | Qty | Unit | Cost | Item Total | Subtotal |
|---|---|---|---|---|---|---|
| | | | | | | |
| **A.** | **Project Start-up** | | | | | |
| 1. | Bonding and mobilization | ALLOW | 8% | $ 348,978.54 | $ 348,978.54 | |
| 2. | Construction staking | ALLOW | 2% | $ 87,244.64 | $ 87,244.64 | |
| 3. | Temporary fencing | 1,310 | LF | $ 6.00 | $ 7,860.00 | |
| 4. | Traffic control | ALLOW | LS | $ 25,000.00 | $ 25,000.00 | |
| | | | | | | $ 469,080.00 |
| **B.** | **Demolition** | | | | | |
| 1. | Clear and grub | 200,465 | SF | $ 0.25 | $ 50,116.25 | |
| 2. | Miscellaneous demolition | ALLOW | LS | $ 25,000.00 | $ 25,000.00 | |
| | | | | | | $ 75,120.00 |
| **C.** | **Earthwork and Grading and Utilities** | | | | | |
| 1. | Rough grading, 1' avg. depth | 7,085 | CY | $ 80.00 | $ 566,800.00 | |
| 2. | Storm water pollution prevention | ALLOW | LS | $ 50,000.00 | $ 50,000.00 | |
| 3. | Water meter and point of connection, 1-1/2" size | ALLOW | LS | $ 43,000.00 | $ 43,000.00 | |
| 4. | Sanitary sewer point of connection | ALLOW | LS | $ 10,000.00 | $ 10,000.00 | |
| 5. | Backflow preventer | 1 | EA | $ 15,000.00 | $ 15,000.00 | |
| 6. | Storm drain line, 12" pipe | 300 | LF | $ 125.00 | $ 37,500.00 | |
| 7. | Water line, 2" pipe | 380 | LF | $ 80.00 | $ 30,400.00 | |
| 8. | Sanitary sewer line, 4" pipe | 320 | LF | $ 100.00 | $ 32,000.00 | |
| 9. | Catch basin | 7 | EA | $ 3,500.00 | $ 24,500.00 | |
| 10. | Dry well | 4 | EA | $ 3,500.00 | $ 14,000.00 | |
| 11. | Manhole | 1 | EA | $ 6,000.00 | $ 6,000.00 | |
| 12. | Backflow preventer | 1 | EA | $ 8,000.00 | $ 8,000.00 | |
| 13. | Bioretention (4% of hardscape) | 4,620 | SF | $ 20.00 | $ 92,400.00 | |
| 14. | Curb drain | 1 | EA | $ 8,000.00 | $ 8,000.00 | |
| 15. | Misc utilities | ALLOW | LS | $ 20,000.00 | $ 20,000.00 | |
| | | | | | | $ 957,600.00 |
| **D.** | **Site Construction** | | | | | |
| 1. | Concrete curb | 745 | LF | $ 50.00 | $ 37,250.00 | |
| 2. | Asphalt pavement | 12,800 | SF | $ 12.00 | $ 153,600.00 | |
| 3. | Striping | ALLOW | LS | $ 25,000.00 | $ 25,000.00 | |
| 4. | Driveway | 2 | EA | $ 7,500.00 | $ 15,000.00 | |
| 5. | Concrete pavement | 29,590 | SF | $ 18.00 | $ 532,620.00 | |
| 6. | Play area tile | 6,655 | SF | $ 27.00 | $ 179,685.00 | |
| 7. | Curb ramp | 1 | EA | $ 3,500.00 | $ 3,500.00 | |
| 8. | Concrete mowband | 250 | LF | $ 50.00 | $ 12,500.00 | |
| | | | | | | $ 959,160.00 |
| **E.** | **Site Furnishings** | | | | | |
| 1. | Trash/recycling receptacle | 12 | EA | $ 1,200.00 | $ 14,400.00 | |
| 2. | Picnic tables | 12 | EA | $ 1,500.00 | $ 18,000.00 | |
| 3. | Park signage | 1 | EA | $ 6,200.00 | $ 6,200.00 | |
| 4. | Single BBQ | 4 | EA | $ 1,500.00 | $ 6,000.00 | |
| 5. | Group BBQ | 1 | EA | $ 5,800.00 | $ 5,800.00 | |


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prepared for the
**City of Oakley**

**Estimate of Probable Construction Costs**
**Enrico Cinquini Park**
**Preferred Concept Plan**

prepared on: 02/06/2023
prepared by: DC
checked by: BF & ZK

| Item # | Description | Qty | Unit | Cost | Item Total | Subtotal |
|---|---|---|---|---|---|---|
| 6. | Bench | 7 | EA | $ 1,300.00 | $ 9,100.00 | |
| 7. | Chain link fence with slats | 110 | LF | $ 125.00 | $ 13,750.00 | |
| 8. | Split rail fence | 480 | LF | $ 115.00 | $ 55,200.00 | |
| 9. | Restroom option A | ALLOW | LS | $ 500,000.00 | $ 500,000.00 | |
| 10. | Splash pad including surfacing, equipment and mechanical equipment | ALLOW | LS | $ 490,000.00 | $ 490,000.00 | |
| 11. | Pet waste station | 3 | EA | $ 1,000.00 | $ 3,000.00 | |
| 12. | Shade shelter, small | ALLOW | LS | $ 26,000.00 | $ 26,000.00 | |
| 13. | Shade shelter, large | ALLOW | LS | $ 80,000.00 | $ 80,000.00 | |
| 14. | Play equipment | ALLOW | LS | $ 246,134.00 | $ 246,134.00 | |
| 15. | Memorial statue | ALLOW | LS | $ 10,000.00 | $ 10,000.00 | |
| | | | | | | $ 1,483,580.00 |
| **F.** | **Irrigation** | | | | | |
| 1. | Backflow preventer | 1 | EA | $ 4,000.00 | $ 4,000.00 | |
| 2. | Water meter and point of connection, 1" size | 1 | EA | $ 35,000.00 | $ 35,000.00 | |
| 3. | Electrical point of connection | 1 | EA | $ 5,000.00 | $ 5,000.00 | |
| 4. | Controller assembly | 1 | EA | $ 26,000.00 | $ 26,000.00 | |
| 5. | Master valve | 1 | EA | $ 1,000.00 | $ 1,000.00 | |
| 6. | Flow sensor | 1 | EA | $ 1,000.00 | $ 1,000.00 | |
| 7. | Mainline | 1,330 | LF | $ 20.00 | $ 26,600.00 | |
| 8. | Irrigation system, shrub and groundcover areas | 46,210 | SF | $ 2.50 | $ 115,525.00 | |
| 9. | Irrigation system, turf areas | 29,970 | SF | $ 2.25 | $ 67,432.50 | |
| 10. | Irrigation system, tree bubblers | 240 | EA | $ 100.00 | $ 24,000.00 | |
| | | | | | | $ 305,560.00 |
| **G.** | **Soil Preparation** | | | | | |
| 1. | Soil preparation and fine grading | 145,490 | SF | $ 0.75 | $ 109,117.50 | |
| | | | | | | $ 109,120.00 |
| **H.** | **Planting** | | | | | |
| 1. | Trees, 24" box | 120 | EA | $ 500.00 | $ 60,000.00 | |
| 2. | Shrubs and grasses (5' O.C. spacing) | 1,774 | EA | $ 45.00 | $ 79,848.00 | |
| 3. | Groundcover (8' O.C. Spacing) | 1,065 | EA | $ 18.00 | $ 19,163.52 | |
| 4. | Turf from sod | 29,970 | SF | $ 1.00 | $ 29,970.00 | |
| 5. | Biofiltration turf from sod | 4,620 | SF | $ 2.00 | $ 9,240.00 | |
| 6. | Mulch | 115,520 | SF | $ 1.00 | $ 115,520.00 | |
| | | | | | | $ 313,740.00 |
| **I.** | **Landscape Maintenance** | | | | | |
| 1. | Landscape Maintenance | 3 | MO | $ 5,000.00 | $ 15,000.00 | |
| | | | | | | $ 15,000.00 |
| **J.** | **Lighting and Electrical** | | | | | |
| 1. | Electrical service, security camera conduits & Misc electrical | ALLOW | LS | $ 50,500.00 | $ 50,500.00 | |
| 2. | Parking lot and pedestrian lights | 8 | EA | $ 7,500.00 | $ 60,000.00 | |
| | | | | | | $ 110,500.00 |


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prepared for the
**City of Oakley**

**Estimate of Probable Construction Costs**
**Enrico Cinquini Park**
**Preferred Concept Plan**

prepared on: 02/06/2023
prepared by: DC
checked by: BF & ZK

| Item # | Description | Qty | Unit | Cost | Item Total | Subtotal |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| **K.** | **Total Estimated Construction Costs** | | | | | $ 4,798,460.00 |
| | | | | | | |
| **L.** | **Contingencies** | | | | | |
| 1. | Design contingency | ALLOW | 10% | $ 479,846.00 | $ 479,846.00 | |
| 2. | Bid contingency | ALLOW | 10% | $ 479,846.00 | $ 479,846.00 | |
| | | | | | | $ 959,690.00 |
| | | | | | | |
| **M.** | **Total Estimated Construction Costs & Contingencies** | | | | | $ 5,758,150.00 |
| | | | | | | |
| **N.** | **Professional Services** | | | | | |
| 1. | Additional services fees | Allow | LS | $ 75,000.00 | $ 75,000.00 | |
| | | | | | | $ 75,000 |
| | | | | | | |
| **O.** | **TOTAL ESTIMATED PROJECT COST** | | | | | **$ 5,833,150.00** |
| | | | | | | |

**Based on drawing titled "Preferred Concept Plan, dated "February 2023"**

The above items, amounts, quantities, and related information are based on Callander Associates' judgment at this level document preparation and is offered only as reference data. Callander Associates Landscape Architecture, Inc. has no control over construction costs and related factors affecting costs, and advises the client that significant variation may occure between this estimate of probable construction costs and actual construction prices.


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# PREFERRED CONCEPT PLAN

## ENRICO CINQUINI PARK

City of Oakley, California

CALA

February 7, 2022

22046_PreliminaryConceptPlans.indd

OAKLEY CALIFORNIA

OAKLEY
CALIFORNIA

**DATE:** July 11, 2023
**TO:** Joshua McMurray, City Manager
**FROM:** Kevin Rohani, Public Works Director/City Engineer
**SUBJECT:** Fiscal Year (FY) 2022/23 Fourth Quarter Report on the Capital Improvement Program

Approved and Forwarded to the City Council

## Background and Analysis

This report summarizes the status of the various projects in the City of Oakley Capital Improvement Program (CIP) at the end of the Fourth Quarter for FY 2022/23.

The City's CIP is a multi-year forecast of capital needs that includes new construction projects and planned improvements of existing facilities. The CIP establishes structure by identifying, prioritizing, approving, and the funding of capital improvement projects. Since the demand for capital projects typically exceeds the amount of available funds, projects are prioritized based on the City Council's Strategic Goals.

The following highlights some of the projects and their progress in the Fourth Quarter of FY 2022/23 (April-June 2023):

### 1. Oakley Regional Community Park Project

Project # 176
Schedule: Project Master Planning is underway
Budget: $3,547,859
Funding Source: Community Park Fund, and Park Impact Fee

This project transforms a 55-acre site at the end of Sellers Avenue that was given to the City as part of the development agreements with the Emerson, Gilbert, and Burroughs development projects. This site had several deteriorated structures related to a dairy farm that had been closed for decades. The first phase of this project was to demolish and remove the abandoned structures, which were a safety concern, and to clean up the site. This task was accomplished in the summer of 2019. In March of 2021, the City applied for a State Proposition 68 grant to fund the first phase of this project and did not qualify for the grant. The construction of the Oakley Regional Park will span several years as funding is secured through a combination of Grants and local funds. There will be a new master planning of this park that is currently underway to solicit input from the community as to the features desired for incorporation in this park and develop a new concept plan that can be used for future grant funding opportunities.

**2. Downtown Gateway Plaza and Infrastructure Improvement Project**

Project # 205
Schedule: Construction is underway
Budget: $6,500,000
Funding Source: General Capital Projects Fund, Measure J Fund, Gas Tax Fund

The Downtown Gateway Plaza and Infrastructure Improvement Project will compliment a new San Joaquin Joint Power Authorities train platform station located north of Main Street in the general area between 2nd Street and Norcross Lane. The San Joaquin Joint Power Authorities has secured the grant funding for the design and construction of the new platform station and will operate the train platform station after its construction. This train platform station is strategically located in the downtown, adjacent to the Main Street Gateway Plaza and its associated parking lot. The infrastructure improvements were designed and will be constructed by the City. The new parking lot is anticipated to provide over 270 parking spaces and is a big part of the future growth for Downtown Oakley. The construction of this project is anticipated to be completed by the end of 2023.

**3. FY 2022/23 Curb, Gutter and Sidewalk Reconstruction Project**

Project # 275
Schedule: Construction is completed
Budget: $150,000
Funding Source: Gas Tax Fund

This project repaired and replaced damaged concrete curb, gutter, and sidewalk in the community as part of the 50-50 cost sharing program between the City and property owners. This project has been successfully implemented for the past few years and continued into FY 2022/23. This project has helped to provide safe pedestrian facilities and reduce liability and claims for trip and fall accidents.

**4. East Cypress Road Widening (Knightsen Avenue to Jersey Island Road) Project**

Project # 247
Schedule: Construction is underway
Budget: $8,900,000
Funding Source: Traffic Impact Fee Fund

The growth and development of new subdivision projects along the East Cypress Road corridor has necessitated various infrastructure improvements to accommodate the increased traffic demands on this road. This project will reconstruct East Cypress Road from Knightsen Avenue to Jersey Island Road. The improvements will include a 6-lane roadway, curb, gutter, sidewalks, streetlights, traffic signal, and underground utility infrastructure. The widening will stop just short of the Contra Costa Canal where the developer to the east of the canal is responsible to continue the widening and improvement of East Cypress Road to Bethel Island Road. The design of this project is complete, and the project is in the bidding phase. The construction is anticipated to start in summer 2023 and will be completed by fall 2024.

**5. Downtown Parking Lot Construction Project**

Project # 215
Schedule: Construction is underway
Budget: $3,979,000
Funding Source: Main Street Fund, General Capital Fund

This project, in continuing the implementation of the Strategic Goals of the City Council to improve and enhance Downtown Oakley; constructed a new parking lot and associated street infrastructure on the north side of Main Street and the Norcross Lane intersection. This new parking lot is located behind the Entrepreneur Center and the new Oakley Mercantile Building and will serve the greater downtown merchants and their customers. The construction is anticipated to be completed by summer 2023.

**6. Oakley Civic Center Emergency Generator Project**

Project # 228
Schedule: Construction is underway
Budget: $197,500
Funding Source: General Capital Fund

The Civic Center facility is the center of government in Oakley, which handles all critical functions for the community residents, including Police services. The current facility does not have a standby emergency generator to address the frequent PG&E power outages that take place in this region. This project will install an emergency generator which will provide electricity to the entire Civic Center facility in times of power emergencies. The new generator has been delivered and installed and the City is currently working with PG&E to coordinate the power transfer to the new generator prior to the start-up of operations. Once this PG&E task has been completed, the generator will be on standby and ready to supply electricity during future power outages. It is anticipated that the construction work will be completed by fall 2023.

**7. Holly Creek Park Restroom Construction Project**

Project # 248
Schedule: Construction is completed
Budget: $450,000
Funding Source: Park Impact Fee Fund

This project constructed a permanent restroom facility at Holly Creek Park. The demand for City of Oakley recreational fields continues to grow, particularly for organized sports such as Baseball and Soccer leagues. The field at Holly Creek Park is one of the favorites and a much-desired field in Oakley for leagues to use for sporting activities. This park did not have any restroom facilities which necessitated the placement of portable toilets at this park. This approach has created many operational and sanitary issues and was not a sustainable solution to address the need for a public restroom facility. This project constructed a permanent restroom facility at this park, like the restroom facility that was constructed at the Koda Dog Park.

**8. Recreation Center Emergency Generator Project**

Project # 249
Schedule: Construction is underway
Budget: $300,000
Funding Source: ARPA Fund

This project will install an emergency generator at the Oakley Recreation Center facility. The Recreation Center campus is the center of recreational activities for the Oakley community, and currently does not have a back-up power source. In periods of PG&E power outages, the operations at the Recreation Center that require electricity comes to a halt. This project will install an Emergency Generator behind the Recreation Center building to provide stand-by power during periods of PG&E power outages to ensure that the Recreation Center operations will continue uninterrupted. It is anticipated that the construction work will be completed by early 2024.

**9. Laurel Road Extension Project (Teton Road to Sellers Avenue)**

Project # 273
Schedule: Design is underway
Budget: $300,000
Funding Source: Traffic Impact Fee Fund

This Project will extend Laurel Road from Teton Road to Sellers Avenue, providing an alternate and much needed secondary route for the residents of far east Oakley along East Cypress Road. Currently, the only major access in and out of far east Oakley is via East Cypress Road. This current route along East Cypress Road passes by an elementary and middle school and crosses the Burlington Northern Santa Fe (BNSF) railroad tracks. Traffic volumes have increased over the years and continue to grow with the new housing developments in far east Oakley. Extending Laurel Road from Teton Road to Sellers Avenue will provide much-needed direct access to Highway 4 and job centers in the Bay Area and reduce traffic congestion from East Cypress Road. This project will construct a new bridge across the BNSF railroad tracks and construct a new 4-lane roadway with curb, gutter, sidewalks, medians, and streetlights. In addition, a new traffic signal will be constructed at the intersection of Laurel Road and Sellers Avenue. The preliminary design of this project is underway which will determine the Right of Way needs of the project. Staff will be working on the Right of Way acquisition process and securing funding for this project, which is estimated to be nearly $40M.

**10. Laurel Road Widening Project (O'Hara Avenue to Cloverbrook Avenue**

Project # 280
Schedule: Design is underway
Budget: $2,500,000
Funding Source: Traffic Impact Fee Fund

Laurel Road from O'Hara Avenue to Cloverbrook Avenue is the last section of Laurel Road that needs to be widened and improved. Laurel Road is a major Arterial Road and the City's designated truck route with a direct connection to Highway 4. This section of Laurel Road has not been widened or improved due to the lack of Right of Way and is starting to deteriorate due to the large volume of vehicles that use Laurel Road every day. Staff is working with the property owners at the intersection of Laurel Road and O'Hara Avenue to obtain the necessary right of way for the roadway widening. The design of this project will begin promptly and will require major utility relocation of the Western Area Power Administration (WAPA) utility poles as a part of this project. This entire project will span over 3 to 4 years to complete, due to the complex nature of its various components.

**11. Enrico Cinquini Park Construction Project**

Project # 281
Schedule: Design is underway
Budget: $3,500,000
Funding Source: Park Impact Fee Fund

The developer of the Stonewood Subdivision, a collection of 262 lots, was conditioned to construct a new park (Enrico Cinquini Park) at the intersection of Rose Avenue and Carpenter Road. The obligation of the developer is the total amount of their Park Impact Fee ($2.1M), which would not be sufficient to construct this park and its associated facilities and features. As a result, the City will design and construct this park by utilizing the Park Impact Fee obligation of the developer, as well as supplementing it with additional City Park Impact fees. The beautiful and feature packed park for the community will include a new natural turf field, site grading, landscaping and irrigation, a half basketball court, a bocce ball court, a cornhole court, a splashpad water feature, a playground, and a covered picnic area. The design of the project is currently underway, and construction is anticipated to start in Spring 2024

**12. City Hall Rooftop Solar Power Project**

Project # 286
Schedule: Construction is underway
Budget: $550,000
Funding Source: Public Facility Impact Fee Fund

This project will install solar panels on the roof of the Civic Center facility to provide the electricity needed for the operation of the Civic Center facilities in a sustainable and environmentally friendly approach. The implementation of this project will reduce the carbon footprint of the Civic Center operations, which is a part of the new Strategic Goals for the City. It is anticipated that the construction work will be completed by summer 2023.

**13. Senior Center Roof and HVAC Repair and Replacement Project**

Project # 288
Schedule: Construction is completed
Budget: $80,000
Funding Source: CDBG Fund

The City of Oakley has leased the former fire station building located at 215 2nd Street to the Oakley Senior Citizens group. The roof had started to deteriorate and needed to be restored before the rainy season; and the HVAC system was also failing and inadequate for the space. The rehabilitation project included roof restoration and replacing the HVAC system to accommodate the needs of the Senior Center and its users. This work was funded by the Community Development Block Grant (CDBG) funds, as well as the City of Oakley's matching funds.

## Consistency with the Oakley Strategic Plan 27+

This item is consistent with the Strategic Plan 27+ Community Health and Safety goals.

## Fiscal Impact

Each project listed in this report has a budgeted source of funds which have been approved by the City Council. These sources include Grants, Gas Tax, Measure J Sales Tax, Traffic Impact Fees, General Fund, Main Street Fund and other Special Use funds. There is no fiscal impact associated with this CIP Update, this report is solely for informational purposes.

## Staff Recommendation

The Oakley City Council should provide comments and input to staff on the CIP report for the Fourth Quarter of FY 2022/23.

## Attachments

None

OAKLEY
CALIFORNIA

**DATE:** July 11, 2023

**TO:** Joshua McMurray, City Manager

**FROM:** Kevin Rohani, P.E., Public Works Director/City Engineer

Approved and Forwarded to the City Council

**SUBJECT:** Agreement with Mark Thomas & Co. Inc. for Engineering Design Services associated with East Cypress Road Lane Alignment Analysis (Railroad Tracks to Main Street) Capital Improvement Project Number 301

## Background and Analysis

East Cypress Road is a major transportation corridor in Oakley that not only serves the Oakley residents but also residents of the far east county area and Bethel Island who use East Cypress Road on their daily commute and ultimately access Highway 4 and job centers in the greater Bay Area.

East Cypress Road was constructed by Contra Costa County decades ago as a two-lane roadway serving the agricultural regions of far east Oakley. Over the years as the entire region has experienced rapid growth, there has been a transformation of agricultural parcels of land to subdivisions as part of major private residential development projects. Each development project has reconstructed East Cypress Road along their project frontage to new modern City standards. This process will continue into the coming years as various parcels of land along East Cypress Road are developed and as part of those developments, sections of East Cypress Road will be reconstructed.

The City's transportation network continues to grow to accommodate the new residents who move to Oakley and live along the East Cypress Road corridor. Capital Improvement Project (CIP) No. 301 will perform a detailed analysis of the alignment of East Cypress Road in the section from the railroad tracks to the intersection with Main Street. The purpose of this analysis is to come up with the most optimized lane alignment to enhance traffic flows and minimize congestion. There are physical constraints on the roadway, such as bridges, that would have to be evaluated as part of this project, to create the most optimized lane configurations on this section of East Cypress Road.

Staff have worked with the consulting firm, Mark Thomas & Co. Inc. on the preparation of a proposal for this project. Mark Thomas & Co. Inc. have a long history of the development of East Cypress Road and its evolution and would be best suited to undertaking this lane configuration analysis. After the conclusion of this analysis, any recommendations that will be proposed for implementation will be included in future year CIP budgets.

## Consistency with the Oakley Strategic Plan 27+

This item is consistent with the Strategic Plan 27+ Community Health and Safety goals.

## Fiscal Impact

The FY 2023/24 CIP budget has allocated funding from the Traffic Impact Fee fund for this project.

## Staff Recommendation

Staff recommends that the City Council adopt the resolution approving the proposal from Mark Thomas & Co. Inc. for the design services associated with CIP No. 301 – East Cypress Road Lane Alignment Analysis (Railroad Tracks to Main Street) and to authorize the City Manager to enter into an agreement not to exceed an amount of $53,264.50.

## Attachments

1. Resolution
2. Proposal from Mark Thomas & Co. Inc.

**RESOLUTION NO. XX-23**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OAKLEY AUTHORIZING THE CITY MANAGER TO SIGN A CONSULTING SERVICES AGREEMENT WITH MARK THOMAS & CO. INC. FOR DESIGN SERVICES FOR THE EAST CYPRESS ROAD LANE ALIGNMENT ANALYSIS (RAILROAD TRACKS TO MAIN STREET) – CAPITAL IMPROVEMENT PROJECT NUMBER 301**

**WHEREAS**, as part of the Fiscal Year 2023/24 Budget the City of Oakley approved a 5-Year Capital improvement Program (CIP); and

**WHEREAS**, Project Number 301 is to perform analysis of lane alignment on East Cypress Road (Railroad Tracks to Main Street); and

**WHEREAS,** staff solicited a proposal from Mark Thomas & Co. Inc. for the design of this project; and

**WHEREAS**, Mark Thomas & Co. Inc. has submitted a comprehensive proposal for engineering design services for CIP Project Number 301 for an amount not to exceed $53,264.50; and

**NOW, THEREFORE, BE IT RESOLVED AND ORDERED**, that the City Council of the City of Oakley hereby approves the proposal from Mark Thomas & Co. Inc. for engineering design services for CIP Project Number 301 for an amount not to exceed $53,264.50, in the form attached hereto as Exhibit A, and authorizing the City Manager to execute this into an Agreement.

**PASSED AND ADOPTED** by the City Council of the City of Oakley at a meeting held on the 11th day of July 2023 by the following vote:

AYES:
NOES:
ABSENT:
ABSTENTIONS:

APPROVED:

_____
Aaron Meadows, Mayor

ATTEST:

_____
Libby Vreonis, City Clerk

_____
Date

# CYPRESS ROAD IMPROVEMENTS FEASIBILITY STUDY SCOPE OF WORK

Mark Thomas will prepare a preliminary feasibility study of the westbound (WB) Cypress Road and right turn lane improvements onto Main Street at the Cypress Road/Main Street intersection. The purpose of the feasibility study is to determine the feasibility, cost, and design options of constructing a dedicated right turn lane for westbound Cypress Road onto Main Street.

As part of the feasibility study, Mark Thomas will consider the implications of adding a dedicated right turn lane as well as up to three options for Cypress Rd, including but not limited to reducing the lane widths to accommodate a dedicated right turn lane and modifying the Marsh Creek Regional Trail bridge and Cypress Rd overcrossing. The feasibility study will identify potential right of way impacts, environmental constraints, drainage, and utility relocations. Conceptual cost estimates will be prepared, and this will be documented in a feasibility study. The feasibility study will use City-provided aerial mapping, publicly available aerial imagery, City GIS-based assessor parcel data, and data collected by Mark Thomas.

### Applicable Standards

The preliminary plans and preliminary estimates will be prepared in accordance with Caltrans' regulations, policies, procedures, manuals and standards. Items A through F are not all inclusive, but are intended only to illustrate types of sources.

A. Roadway design will be in accordance with the 7th edition of the Caltrans Highway Design Manual (with updates through May 20, 2022), the 2022 Caltrans Standard Plans, the 2022 Caltrans Standard Specifications and updates, the Manual on Uniform Traffic Control Devises (MUTCD) and its California Supplement.

B. City of Oakley Standard Plans

The specifics of the study scope tasks are described below.

## TASK 1. PROJECT MANAGEMENT AND COORDINATION

### Task 1.1. Project Management & Coordination

This task will include ongoing general project management activities, including managing task activities and preparing progress reports. Mark Thomas will organize and maintain project files and records to track correspondence, contractual matters, data requests, transmittals and other project data. Mark Thomas will also coordinate study activities with its internal team, and City Staff through regular communication via telephone calls, emails and other correspondence.

### Task 1.2. Meetings

Mark Thomas will attend a project kick off meeting and four (4) bi-weekly video calls (assumed 30 min calls) via MS Teams and one project presentation meeting of findings to City Staff. This task includes preparation of agendas,

meeting minutes, log of action items, and data request log. A simple project Critical Path Method (CPM) schedule will be prepared at task initiation and updated monthly throughout the task duration.

### TASK 1 DELIVERABLES

- Meeting Agendas and Minutes (2 Meetings)
  - One (1) Kick-off Meeting, One (1) Project Presentation Meeting
- Bi-weekly Meeting Attendance (up to 4 meetings)
- Monthly Progress Reports to be included with monthly invoices

# TASK 2. DATA COLLECTION

## Task 2.1. Data Gathering

Mark Thomas will compile existing background data provided by the City for the project area. This is anticipated to include aerial topographic mapping, assessor's parcel data right of way mapping, utility mapping, and other relevant information. The base map will use City provided aerial mapping, publicly available aerial imagery, City GIS-based assessor parcel data, and data collected by Mark Thomas. Mark Thomas will supplement City supplied mapping and data with publicly available aerial imagery.

### TASK 2 DELIVERABLES

- Base Map – not a separate deliverable but used as background for the exhibits prepared under Task 3

# TASK 3. PRELIMINARY ENGINEERING

## Task 3.1. Preliminary Geometrics

Mark Thomas will develop conceptual geometrics for the dedicated right turn lane onto Main Street from Cypress Road. Mark Thomas will coordinate with the City for the preferred alternative to be used for the feasibility study. The variations will be based on different accommodation of the dedicated right turn lane. Mark Thomas will consider the implications of adding a dedicated right turn lane as well as up to three options for Cypress Rd, including but not limited to reducing the lane widths to accommodate a dedicated right turn lane and modifying the Marsh Creek Regional Trail bridge and Cypress Rd overcrossing. Prior to beginning layout of the facility, Mark Thomas will prepare the three preliminary cross sections for City consideration and review.

Conceptual drainage design will also be considered. Feasibility study will determine general right of way impacts. In addition, Mark Thomas will consider utility conflicts for Cypress Road.

## Task 3.2. Preliminary Project Cost Estimate

Mark Thomas will prepare rough order of magnitude (ROM), construction cost estimates for each of the dedicated right turn lane alternatives. Cost estimates will include allowances and contingencies appropriate for high level budgeting purposes. Cost estimates will be for current year construction cost and escalation can be added depending on anticipated project construction year schedule. Estimates will not include full project development costs; however, depending on project delivery approach, support costs could be added as a percentage of overall cost.

### TASK 3 DELIVERABLES

- Conceptual Design Exhibits
- Preliminary Cost Estimate

## TASK 4. FEASIBILITY MEMORANDUM

Mark Thomas will document the findings of the feasibility study in a Feasibility Memorandum. The Feasibility Memorandum will describe the findings of the study, including design factors, unknowns, design challenges, project risks, alternative costs, and project delivery schedule.

The Feasibility Memorandum will also include analysis of the potential project funding opportunities and eligibility for various local, regional, state, and federal funding programs. Mark Thomas will consult with City staff to identify and document the likely environmental considerations and level of CEQA and NEPA environmental documentation for the project in the Feasibility Memorandum. The Feasibility Memorandum will be prepared and submitted to the City initially in draft form for comments. Upon receipt of comments, the Feasibility Memorandum will be updated to address comment and resubmitted in final form.

### TASK 4 DELIVERABLES

- Draft Feasibility Memorandum
- Final Feasibility Memorandum

## SCHEDULE

It is assumed the duration will be 3 months.

## BASE ASSUMPTIONS/EXCLUSIONS

1. No surveys will be conducted. Exhibits will use existing GIS mapping as background.
2. No traffic counts or analysis will be conducted for this study.
3. No geotechnical investigation will be conducted.
4. City to provide GIS-based assessor parcel data.
5. City to provide as-builts for existing structures including Marsh Creek Trail bridge and Cypress Road overcrossing and utility as-built data for Cypress Rd.
6. No utility field investigation or potholing will be conducted for this study.
7. Regulatory or resource agency permitting is not included.
8. Retaining wall or structural design is excluded from this scope.
9. No retrofit of the existing bridge is required.
10. All deliverables will be in electronic format and no hard copies reproductions are included in the scope.
11. Our scope assumes no changes in profile of Cypress, Main Street, and the existing structures.
12. Landscape or irrigation plans not included in this scope.

# COST PROPOSAL FOR PROJECT SCOPE - City of Oakley: Cypress Road Improvements Project

| | | Mark Thomas | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Principal Sasha Dansky $405 | Project Manager Danielle Sanchez $232 | Project Manager $232 | Technical Lead $232 | Project Engineer $175 | Design Engineer I $131 | Sr. Project Coordinator $157 | Project Accountant $144 | Total Hours | Total MT Cost | TOTAL COST |
| | | | | | | | | | | | | |
| **1.0** | **TASK 1. PROJECT MANAGEMENT** | | | | | | | | | | | |
| 1.1 | Project Controls and Management | 2 | 12 | | | | | 8 | 4 | 26 | $5,422 | $5,422 |
| 1.2 | Meetings | 3 | 3 | | | | | | | 6 | $1,910 | $1,910 |
| | **Subtotal Phase 1** | **5** | **15** | **0** | **0** | **0** | **0** | **8** | **4** | **32** | **$7,332** | **$7,332** |
| | | | | | | | | | | | | |
| **2.0** | **TASK 2. DATA COLLECTION** | | | | | | | | | | | |
| 2.1 | Data Gathering | | 1 | | | 4 | 8 | | | 13 | $1,978 | $1,978 |
| | **Subtotal Phase 2** | **0** | **1** | **0** | **0** | **4** | **8** | **0** | **0** | **13** | **$1,978** | **$1,978** |
| | | | | | | | | | | | | |
| **3.0** | **TASK 3. PRELIMINARY ENGINEERING** | | | | | | | | | | | |
| 3.1 | Preliminary Geometrics | 2 | 8 | 3 | 4 | 24 | 72 | | | 113 | $17,905 | $17,905 |
| 3.2 | Preliminary Project Cost Estimate | 1 | 2 | 3 | 2 | 8 | 40 | | | 56 | $8,662 | $8,662 |
| | **Subtotal Phase 3** | **3** | **10** | **6** | **6** | **32** | **112** | **0** | **0** | **169** | **$26,566** | **$26,566** |
| | | | | | | | | | | | | |
| **4.0** | **TASK 4. FEASIBILITY MEMORANDUM** | | | | | | | | | | | |
| 4.1 | Feasibility Memorandum | 1 | 40 | 2 | | 4 | 8 | | | 55 | $11,888 | $11,888 |
| | **Subtotal Phase 4** | **1** | **40** | **2** | **0** | **4** | **8** | **0** | **0** | **55** | **$11,888** | **$11,888** |
| | | | | | | | | | | | | |
| **TOTAL HOURS** | | **9** | **66** | **8** | **6** | **40** | **128** | **8** | **4** | **269** | | |
| **OTHER DIRECT COSTS** | | | | | | | | | | | $500 | **$500** |
| **TOTAL COST** | | **$3,643.75** | **$15,301.54** | **$1,854.73** | **$1,391.05** | **$6,985.32** | **$16,757.72** | **$1,253.31** | **$577.07** | | **$48,264.50** | **$48,264.50** |
| **Suggested Contingency (10% of labor)** | | | | | | | | | | | | **$5,000.00** |
| **TOTAL WITH CONTINGENCY** | | | | | | | | | | | | **$53,264.50** |

MT Fee (FAR (X) Rates)

Please note that the rates shown are for estimating purposes only. See rate schedule for actual rates/ranges.

# MARK THOMAS & COMPANY, INC. RATE SCHEDULE

EXPIRES JUNE 30, 2023

| | |
|---|---|
| **Engineering** | |
| Design Engineer I | $88 - $145 |
| Design Engineer II | $109 - $177 |
| Project Engineer | $147 - $184 |
| Sr. Project Engineer | $158 - $216 |
| Sr. Technical Engineer | $158 - $216 |
| Technical Lead | $182 - $248 |
| Sr. Technical Lead | $217 - $316 |
| Engineering/Design Manager | $282 - $361 |
| Sr. Engineering Manager | $311 - $452 |
| **Construction Management** | |
| Office Engineer | $109 - $207 |
| * Asst. Resident Engineer | $155 - $284 |
| * Inspector - CM | $150 - $284 |
| RE/Structural Representative | $205 - $345 |
| Area Manager - CM | $308 - $452 |
| **Planning** | |
| Planner I | $82 - $106 |
| Planner II | $106 - $132 |
| Sr. Planner | $120 - $165 |
| **Landscape Architecture/Urban Design** | |
| Landscape Designer I | $76 - $113 |
| Landscape Designer II | $94 - $142 |
| Landscape Architect | $109 - $190 |
| Sr. Landscape Architect | $117 - $213 |
| **Grant Writing** | |
| Funding Specialist | $109 - $210 |
| Sr. Funding Specialist | $147 - $226 |
| Funding Manager | $249 - $326 |
| **District Management** | |
| * Inspector - Apprentice | $59 - $106 |
| * Inspector/Sr. Inspector | $97 - $158 |
| Assistant/Associate Sanitary Engineer | $138 - $207 |
| Sanitary/Sr. Sanitary Project Engineer | $161 - $281 |
| Operations/Deputy District Manager | $223 - $339 |
| District Manager-Engineer | $305 - $368 |

| | |
|---|---|
| **Surveying** | |
| Surveyor | $109 - $155 |
| Sr. Surveyor | $123 - $187 |
| Project Surveyor | $144 - $219 |
| Sr. Project Surveyor | $167 - $226 |
| * Single Chief | $153 - $203 |
| * Single Instrumentman | $144 - $181 |
| * Single Chainman | $135 - $177 |
| * Apprentice | $81 - $139 |
| * 1 Person Field Crew | $153 - $203 |
| * 2 Person Field Crew | $288 - $407 |
| * 3 Person Field Crew | $369 - $584 |
| **Technicians** | |
| Intern | $47 - $103 |
| Technician/Office/Survey Technician | $62 - $129 |
| Sr. Technician/Survey Technician | $91 - $177 |
| Lead Technician/Survey Technician | $123 - $200 |
| **Project Management & Oversight** | |
| Project/Survey Manager | $182 - $258 |
| Sr. Project/Survey Manager | $217 - $345 |
| Division Manager | $244 - $381 |
| Principal | $390 - $461 |
| **Project Support** | |
| Technical/Sr. Technical Writer | $59 - $171 |
| Project/Sr. Project Assistant | $70 - $132 |
| Project/Sr. Project Coordinator | $94 - $168 |
| Graphic/Sr. Graphic Designer | $100-$187 |
| Project/Sr. Project Accountant | $103 - $177 |
| Sr. Graphic Manager | $141 - $207 |
| Project Accountant Manager | $155 - $216 |
| **Special Services** | |
| Expert Witness | $470 |
| Strategic Consulting | $470 |

**Reimbursables** including, but not limited to; reproductions, delivery and filing fees; outside consultant fees; and survey field expenses will be billed at *Cost Plus 5%* . **Mileage** will be billed per *current IRS Rate*.

*Additional promotional steps exist within various rate categories.*
*This rate schedule expires June 30, 2023; rates are subject to escalation with new hourly rate schedule as of July 1, 2023.*
** These charge rates are subject to Prevailing Wage laws and Union contract.*

OAKLEY
CALIFORNIA

**DATE:** July 11, 2023

**TO:** Joshua McMurray, City Manager

**FROM:** Kevin Rohani, P.E., Public Works Director/City Engineer

Approved and Forwarded to the City Council

**SUBJECT:** Award of Construction Contract to Specified Play Equipment Company for the Koda Dog Park Shade Structure Project - Capital Improvement Program (CIP) Number 287

## Background and Analysis

Koda Dog Park has become a very popular destination for residents and visitors to bring their dogs to exercise and play. One of the more frequent requests coming from the community has been for shade to be installed at this park, specifically within the off-leash areas that people frequent while their dog's play. This project will provide a much-desired upgrade to Koda Dog Park and will increase the Park's ability to be a focal point that encourages community use and civic pride.

This project will construct several new shade structures which will complement this park and its facilities for the enjoyment of all its visitors. Staff have sought after ideas, renderings, quotes and recommendations from various vendors and sources. With an almost endless supply of standard and custom options, staff has selected a design and proposal for $149,637.92 provided by Specified Play Equipment Company. This design is functional, aesthetically pleasing and was found to be the best option for this project with the longest and strongest warranty in the industry. The inflation and shortage of materials that has affected all parts of society, have also impacted the cost of projects. However, with the approach that we have used with Sourcewell, it ensures that we get the best competitive pricing for projects.

The City of Oakley is a member and participant of Sourcewell, a municipal contracting agency. Sourcewell allows participating municipal agencies to leverage the benefits of cooperative purchasing and reduces procurement costs rather than paying higher costs associated with individual procurement. Sourcewell serves all educational, government, and nonprofit agencies nationwide and offers cooperative contracted products and equipment to government entities throughout the United States. All Sourcewell contracts have been competitively solicited nationwide and the evaluation committee selected Specified Play Equipment Company as the best responsive proposer for providing playground and related equipment.

The construction of this project is anticipated to be completed by the end of August of 2023.

## Consistency with the Oakley Strategic Plan 27+

This project is consistent with the Oakley Strategic Plan 27+ Park and Open Space Goals.

## Fiscal Impact

The City's Park Impact Fee Fund will fund the purchase and construction for this project as part of the FY 2022/23 budget which allocated $150,000 for the project. Sourcewell's cooperative purchasing program was utilized for this project procurement.

## Staff Recommendation

Staff recommends that the City Council adopt the resolution approving the construction agreement with Specified Play Equipment Company for the Koda Dog Park Shade Structure Project for an amount not to exceed $149,637.92.

## Attachments

1. Resolution
2. Specified Play Equipment Company - Koda Dog Park Shade Proposal

**RESOLUTION NO. __-23**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OAKLEY APPROVING A CONSTRUCTION AGREEMENT WITH SPECIFIED PLAY EQUIPMENT COMPANY FOR THE CONSTRUCTION OF THE KODA DOG PARK SHADE STRUCTURE PROJECT - CIP NUMBER 287**

**WHEREAS**, the community has a requested shade structure be installed at Koda Dog Park to supplement the existing trees that are providing shade for park users; and

**WHEREAS**, staff has worked over the past several months to develop the design of the new Shade Structure and have worked with the Sourcewell procurement process to get bids for this project; and

**WHEREAS,** Specified Play Equipment Company submitted the lowest responsible bid for a total cost of $149,637.92 for the project; and

**NOW, THEREFORE, BE IT RESOLVED**, by the City Council of the City of Oakley that the Construction Agreement with Specified Play Equipment Company for the construction of the Koda Dog Park Shade Structure Project - CIP Number 287 is approved for an amount not to exceed $149,637.92, and the City Manager is authorized to execute an Agreement.

**PASSED AND ADOPTED** by the City Council of the City of Oakley at a meeting held on July 11, 2023, by the following vote:

AYES:
NOES:
ABSENT:
ABSTENTIONS:

APPROVED:

_____
Aaron Meadows, Mayor

ATTEST:

_____ _____
Libby Vreonis, City Clerk Date

SPECIFIED PLAY EQUIPMENT CO.

121 #1 INDUSTRIAL RD. BELMONT. CA 94002
www.SPECPLAY.com | 800.475.1071

# Koda Dog Park
# Oakley, CA

## Shade Proposal

• June,2023

OAKLEY

CLSB # 1050307
DIR # 1000064237

**Specified Play Equipment Company's** *mission is to develop* **self-regulated** *play experiences for people of all ages and abilities to exercise* **risk, failure,** *and* **mastery.**

*As Experts in Play, Sport and Park*

*We Consult, Collaborate, Design and Construct*

www.specplay.com
info@specplay.com
800.475.1071

SPEC
SPECIFIED PLAY EQUIPMENT CO.

# Project Description

- *SPEC is providing the shade installation project at Koda Dog Park. As part of our comprehensive turnkey solution, we will provide a detailed quote encompassing the supply of equipment according to the project plan. This includes the provision of a 30'x30' Hypar sail shade, a triple triangle sail shade measuring 15'x15', and the incorporation of Play4Pups equipment.*
- *In addition to equipment supply, our scope of work covers essential aspects of the project, including site preparation, equipment installation, provision of construction fencing, and engineering of the shades.*
- *To ensure compliance with the Sourcewell purchasing contract, we have taken the proactive step of including the play4Pups equipment. This collaborative approach allows us to enhance the park's offerings while adhering to established procurement guidelines.*

PLAY AREA:
—

MAXIMUM FALL HEIGHT:
—

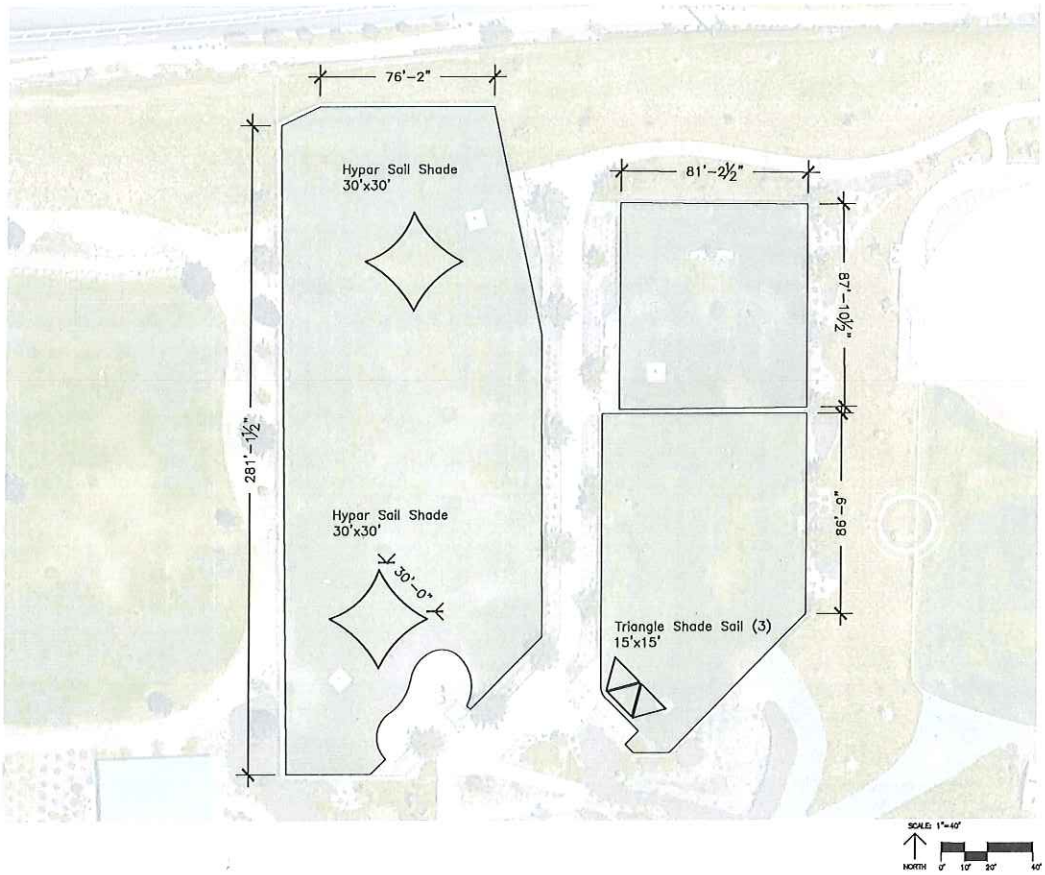
DESIGNED FOR CHILDREN AGES:
☐2–5 YEARS
☐5–12 YEARS
☐13+ YEARS

**WARNING!**
ACCESSIBLE SAFETY SURFACING MATERIAL IS RECOMMENDED BENEATH AND AROUND THIS EQUIPMENT

ALTHOUGH ATTEMPTS HAVE BEEN MADE TO PROVIDE AN ACCURATE SITE, IT MAY NOT TRULY REPRESENT THE AREA WHERE THIS STRUCTURE IS TO BE PLACED.

THE USE AND LAYOUT OF THESE COMPONENTS CONFORM TO THE REQUIREMENTS OF ASTM F1487.

**PROPRIETARY STATEMENT**
THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION AND CANNOT BE REPRODUCED OR DIVULGED, IN WHOLE OR IN PART, WITHOUT WRITTEN AUTHORIZATION OF SPECIFIED PLAY EQUIPMENT CO.




SPEC
SPECIFIED PLAY EQUIPMENT CO.
121 #1 INDUSTRIAL RD.
BELMONT, CA 94002

Signature
Name
License No.
Date

Koda Dog Park
100 Oxford Drive
Oakley, CA

Project Stage: DD

Drawn By: KMR
Checked By:
Date: 8/21/23

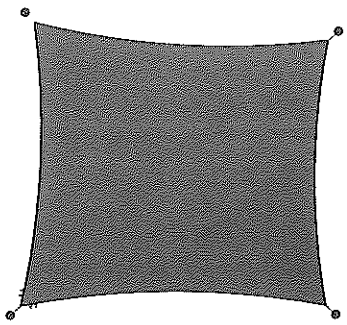
| No. | Revision/Issue | Date |
|---|---|---|
| | | |

Sheet Title: SHADE AREA LAYOUT

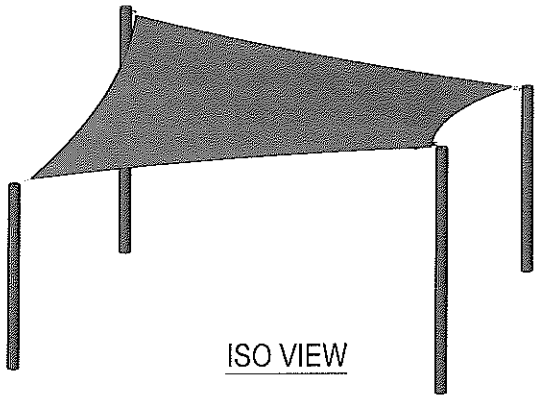
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Sheet: 02
Date:
Scale: As Noted

SPEC_Koda Dog Park_V2.dwg

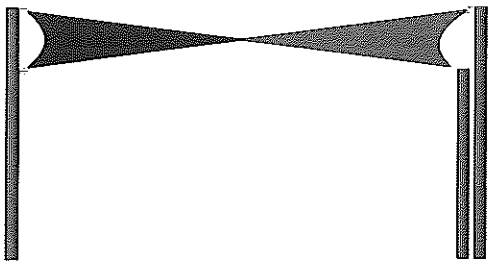

NO PARKING FIRE LANE



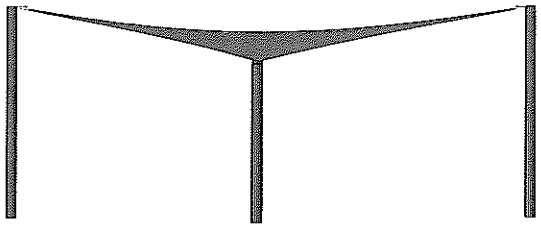
TOP VIEW



ISO VIEW



FRONT VIEW



SIDE VIEW

# Hypar Canopy

| No. | Revision/Issue | Date |
|---|---|---|

Custom
Canopies inc.

Project

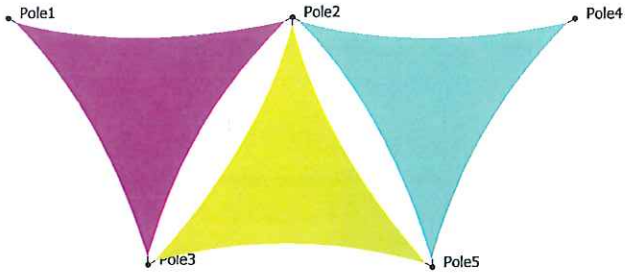
Size

Date

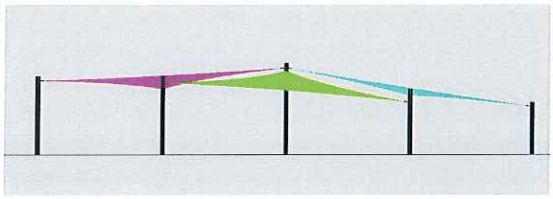
Scale NTS

S1-1

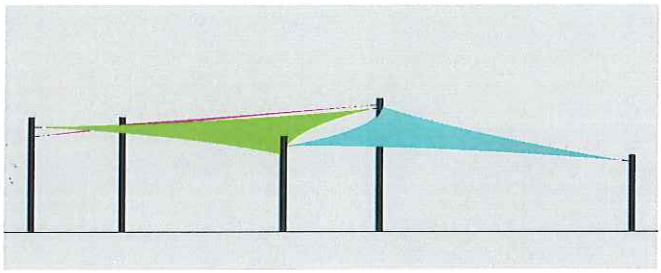

3 FT



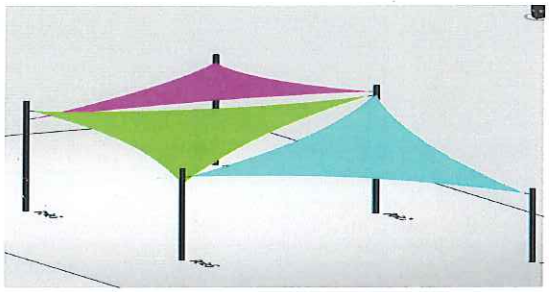

Top View



Front View



Side View



Isometric

# Triple Triangle Sail

General Notes

| No. | Revision/Issue | Date |
|---|---|---|
| | | |

Custom Canopies inc.

Project Name and Address

Project
Date
Scale NTS
Sheet
S1-1

# Color Options

## Post

ALMOND

POWDER BLUE

## Shade Fabric



Purple



Mint Green



Dove Blue

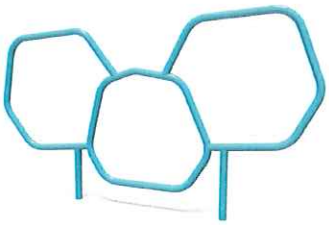


Yellow

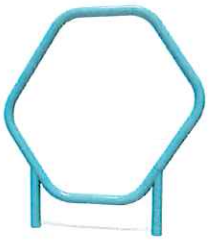
*Weave Hoops*



*Triple Hoop Jump*



*6Sided Hoop Jump*





Play4Pups equipment

www.specplay.com
info@specplay.com
800.475.1071

SPEC
SPECIFIED PLAY EQUIPMENT CO.

# COLORS THAT MOVE YOU

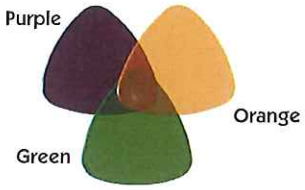
## POWDER COAT PAINT







## SOLIS HUE TOPPERS




## ROCKIT CLIMBERS

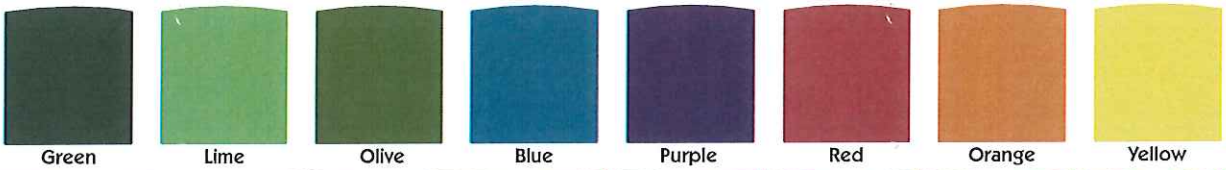

Granite


Sandstone

## PLATFORMS


Blue | Brown | Gray | Recycled Plastic

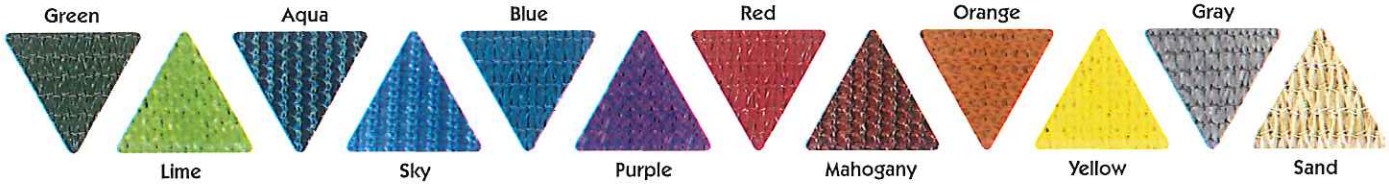
## HDPE PLASTIC PANELS


Green | Lime | Olive | Blue | Purple | Red | Orange | Yellow

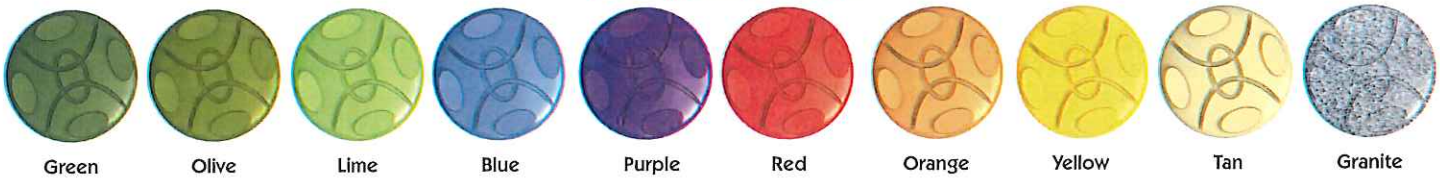

Tan | Gray | Black | Brown | Green/Tan | Lime/Black | Olive/Black | Blue/White | Blue/Yellow


Purple/Gray | Red/White | Orange/Black | Yellow/Black | Yellow/Red | Tan/Green | Gray/Black | Black Gray | Brown/Tan

## SHADE CANOPIES




## ROTOMOLD PLASTIC


Green | Olive | Lime | Blue | Purple | Red | Orange | Yellow | Tan | Granite

**VISIT BCIBURKE.COM/COLOR TO CUSTOMIZE YOUR PLAYGROUND COLORS!**

BCIBURKE.COM Burke 800.266.1250

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## CANOPIES

**Hip Roofs • Multi-Hip Roofs • Full-Cantilever • Semi-Cantilever • T-Bar • Hexagonal**

Our durable canopies are made to withstand almost any wind loads and are an economical shade solution for a range of specifications.



## SAILS

**Hypar • Triangular • Multi-Configuration**

With no limit to the combinations, look and coverage you can achieve, our shade sails can be engineered to comply with any city codes within the USA.



## UMBRELLAS

**Center Post • Cantilever • Retractable**

Our steel umbrellas are engineer designed, rust and corrosion resistant, and require no maintenance.



## DSA

Our DSA approved products make inspections simple, fast and cost effective. We have sizes and combinations that have been approved by the DSA under the 2010 California Building Code, Title 24, Part 2, and CCR.



## CUSTOM

As a fabric structure designer and manufacturer, we have the skills and tools to bring your vision to life. We offer a total package that includes designing the layout, 3D renderings, engineering and manufacturing.

CUSTOM CANOPIES

CONTACT US TO JOIN OUR NETWORK OF DEALERS OR TO FIND A DEALER NEAR YOU.

**www.CustomShadeCanopies.com**

# Custom Canopies Intl. Inc.

"SAFEST UNDER THE SUN"

## Installation:

Install shade structures in a timely manner and coordinate with the work of other trades.

Securely fasten all parts to be attached. Make sure all parts interact freely and smoothly without binding, sticking or excessive clearance.

Install each shade structure and hardware item in compliance with the manufacturers' instructions and recommendations.



## Warranty:

The structural integrity of the steel shall be warranted for twenty (20) years.

The fabric and sewn composite shade covering shall have a limited warranty for 10 years.

The product, when used in its designed capacity, must be guaranteed for a period of 10 years from original installation against:

- The steel frame corroding or deteriorating under normal conditions.
- The steel frame from deteriorating from faulty workmanship.
- Inappropriate design of supporting structure.
- All fabric tops shall be warranted for winds and gusts up to engineering requirement. The fabric warranty is void if winds or gusts are in excess of engineering.
- Excessive loss of color in the fabric under normal exposure conditions, including sunlight, rot and normal atmospheric chemicals that may render it unserviceable.
- Any wearing or blowouts due to wind caused by improper installation or design. Under extreme wind conditions that exceed our design capacity, it is advisable to remove the shade fabric from the structure.
- Structures are not warranted for damages caused by snowfall, cyclones, typhoons, or other acts of God. For canopies not engineered for snow loads, the fabric must be removed during months when snow or heavy wind and storms are expected.

The contractor reserves the right to repair or replace any item covered by the warranty.

Shade structures located in areas where they may be subject to damage during construction by handling, cleaning, etc. (i.e. painting, cleaning of concrete block) shall be protected and or removed from the location until the hazardous condition is terminated.

### Maintenance:

Canopies and shade sails must be inspected and maintenance must be done at least once a year. Refer to the maintenance book supplied.

# BURKE GENERATIONS WARRANTY®

## The Longest and Strongest warranty in the industry

BCI Burke Company, LLC ("Burke") warrants that all standard products are warranted to be free from defects in materials and workmanship, under normal use and service, for a period of one (1) year from the date of shipment.

## We stand behind our products. In addition, the following products are warranted, under normal use and service from the date of shipment as follows:

- One Hundred (100) Year Limited Warranty on aluminum and steel upright posts (including Intensity®, Synergy™, Nucleus®, Voltage®, Little Buddies®, ELEVATE®, ACTIVATE®, INVIGORATE™) against structural failure due to corrosion, deterioration or workmanship.
- One Hundred (100) Year Limited Warranty on KoreKonnect® clamps against structural failure due to corrosion, deterioration or workmanship.
- One Hundred (100) Year Limited Warranty on Hardware (nuts, bolts, washers)
- One Hundred (100) Year Limited Warranty on bolt-through fastening and clamp systems (Synergy™, Intensity®, Nucleus®, Voltage®, Little Buddies®, ELEVATE®).
- Twenty-Five (25) Year Limited Warranty on spring assemblies and aluminum cast animals.
- Fifteen (15) Year Limited Warranty on structure platforms and decks, metal roofs, table tops, bench tops, railings and barriers against structural failure due to materials or workmanship.
- Fifteen (15) Year Limited Warranty on all plastic components including StoneBorders against structural failure due to materials or workmanship.
- Ten (10) Year Limited Warranty on ShadePlay Canopies fabric, threads, and cables against degradation, cracking or material breakdown resulting from ultra-violet exposure, natural deterioration or manufacturing defects. This warranty is limited to the design loads as stated in the specifications.
- Ten (10) Year Limited Warranty on NaturePlay® Boulders and GFRC products against structural failure due to natural deterioration or workmanship. Natural wear, which may occur with any concrete product with age, is excluded from this warranty
- Ten (10) Year Limited Warranty on Full Color Custom Signage against manufacturing defects that cause delamination or degradation of the sign. Full Color Custom Signs also carry a two (2) year warranty against premature fading of the print and graphics on the signs.
- Five (5) Year Limited Warranty on Intensity® and RopeVenture® cables and LEVEL X® flex bridge against premature wear due to natural deterioration or manufacturing defects. Determination of premature wear will be at the manufacturer's discretion.
- Five (5) Year Limited Warranty on moving parts, including swing components, against structural failure due to materials or workmanship.
- Five (5) Year Limited Warranty on PlayEnsemble® cables and mallets against defects in materials and workmanship.
- Three (3) Year Limited Warranty on electronic panel speakers, sound chips and circuit boards against electronic failure caused by manufacturing defects.

The warranty stated above is valid only if the equipment is erected in conformity with the layout plan and/or installation instructions furnished by BCI Burke Company, LLC using approved parts; have been maintained and inspected in accordance with BCI Burke Company, LLC instructions. Burke's liability and your exclusive remedy hereunder will be limited to repair or replacement of those parts found in Burke's reasonable judgment to be defective. Any claim made within the above stated warranty periods must be made promptly after discovery of the defect. A part is covered only for the original warranty period of the applicable part. Replacement parts carry the applicable warranty from the date of shipment of the replacement from Burke. After the expiration of the warranty period, you must pay for all parts, transportation and service charges.

Burke reserves the right to accept or reject any claim in whole or in part. Burke will not accept the return of any product without its prior written approval. Burke will assume transportation charges for shipment of the returned product if it is returned in strict compliance with Burke's written instructions.

**THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IF THE FOREGOING DISCLAIMER OF ADDITIONAL WARRANTIES IS NOT GIVEN FULL FORCE AND EFFECT, ANY RESULTING ADDITIONAL WARRANTY SHALL BE LIMITED IN DURATION TO THE EXPRESS WARRANTIES AND BE OTHERWISE SUBJECT TO AND LIMITED BY THE TERMS OF BURKE'S PRODUCT WARRANTY. SOME STATES DO NOT ALLOW THE EXCLUSION OF CERTAIN IMPLIED WARRANTIES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.**

**Warranty Exclusions:** The above stated warranties do not cover: "cosmetic" defects, such as scratches, dents, marring, or fading; damage due to incorrect installation, vandalism, misuse, accident, wear and tear from normal use, exposure to extreme weather; immersion in salt or chlorine water, unauthorized repair or modification, abnormal use, lack of maintenance, or other cause not within Burke's control; and

**Limitation of Remedies:** Burke is not liable for consequential or incidental damages, including but not limited to labor costs or lost profits resulting from the use of or inability to use the products or from the products being incorporated in or becoming a component of any other product. If, after a reasonable number of repeated efforts, Burke is unable to repair or replace a defective or nonconforming product, Burke shall have the option to accept return of the product, or part thereof, if such does not substantially impair its value, and return the purchase price as the buyer's entire and exclusive remedy. Without limiting the generality of the foregoing, Burke will not be responsible for labor costs involved in the removal of products or the installation of replacement products. Some states do not allow the exclusion of incidental damages, so the above exclusion may not apply to you.

The environment near a saltwater coast can be extremely corrosive. Some corrosion and/or deterioration is considered "normal wear" in this environment. Product installed within 500 yards of a saltwater shoreline will only be covered for half the period of the standard product warranty, up to a maximum of five years, for defects caused by corrosion. Products installed in direct contact with saltwater or that are subjected to salt spray are not covered by the standard warranty for any defects caused by corrosion.

Contact your local Burke Representative for warranty information regarding Burke Turf® and Burke Tile products.

### Terms of Sale

**Pricing:** Prices published in this catalog are in USD, are approximate and do not include shipping & handling, surfacing, installation nor applicable taxes. All prices are subject to change without notice. Contact your Burke representative for current pricing. Payments are to be made in USD.

**Weights:** Weights are approximate and may vary with actual orders.

**Installation:** All equipment is shipped unassembled. For a list of factory-certified installers in your area, please contact your Burke representative.

**Specifications:** Product specifications in this catalog were correct at the time of publication. However, product improvements are ongoing at Burke, and we reserve the right to change or discontinue specifications without notice.

**Loss or Damage in Transit:** A signed bill of lading is our receipt from a carrier that our shipment to you was complete and in good condition upon arrival. Before you sign, please check the Bill of Lading carefully when the shipment arrives to make sure nothing is missing and there are no damages. Once the shipment leaves our plant, we are no longer responsible for any damage, loss or shortage.

**For more information regarding the warranty, call Customer Service at 920-921-9220 or 1-800-356-2070.** **01/2022**

**Specified Play Equipment Co.**
121 #1 Industrial Road
Belmont, CA 94002
800.475.1071
www.specplay.com

SPEC™
SPECIFIED PLAY EQUIPMENT CO.

**ADDRESS**
Kevin Rohani
City of Oakley
3231 Main St.
Oakley, CA 94561

**SHIP TO**
Kevin Rohani
City of Oakley
3231 Main St.
Oakley, CA 94561

## Estimate 2836

**DATE** 06/23/2023

**EXPIRATION DATE** 07/28/2023

| TRACKING NO. | DEPOSIT DUE NOW | CSLB# 1050307 | DIR# 1000064237 |
|---|---|---|---|
| Koda Dog Park - Opt 2 | Terms: Net 30 days | Oakley Sourcewell #118499 | Burke Sourcewell #010521-BUR |

| ACTIVITY | QTY | RATE | AMOUNT |
|---|---|---|---|
| **BCI Burke Equipment**<br>Play for Pups: #700-0250 Triple Hoop Jump | 1 | 671.00 | 671.00T |
| **BCI Burke Equipment**<br>Play for Pups: #700-0248 6-Sided Hoop Jump | 1 | 465.00 | 465.00T |
| **BCI Burke Equipment**<br>Play for Pups: #700-0251 Weave hoop | 4 | 217.00 | 868.00T |
| **Installation Service**<br>Installation of Play for Pups equipment | 1 | 3,500.00 | 3,500.00 |
| **Shade Structure:Custom Canopies**<br>(OPEN MARKET) Hypar Sail Shade 30' x 30', zinc coating included | 2 | 14,360.00 | 28,720.00T |
| **Shade Structure:Custom Canopies**<br>(OPEN MARKET) Triangular Shade 15' x 15' x 15', zinc coating included | 3 | 7,740.00 | 23,220.00T |
| **Installation Service**<br>(OPEN MARKET) Installation of 5 Hypar Sail Shades equipment, including receive and offload | 1 | 71,857.00 | 71,857.00 |
| **Shade Structure:Custom Canopies**<br>(OPEN MARKET) Rebar Cages | 1 | 4,155.00 | 4,155.00T |
| **Temporary Fencing**<br>(OPEN MARKET) Construction fencing | 1 | 3,100.00 | 3,100.00 |

Please write checks to
Specified Play Equipment Co (SPEC Play)
121 #1 Industrial Road
Belmont, CA 94002

| ACTIVITY | QTY | RATE | AMOUNT |
|---|---|---|---|
| **Engineering**<br>(OPEN MARKET) | 1 | 3,610.00 | 3,610.00 |
| **Freight**<br>(OPEN MARKET) Freight and packaging for Shade Sails | 1 | 3,980.00 | 3,980.00 |
| **Freight**<br>Freight and packaging for Play for Pups equipment | 1 | 560.81 | 560.81 |
| **Discount**<br>Sourcewell 7% discount on Burke Play for Pups equipment | 1 | -140.28 | -140.28T |

PLEASE NOTE:
- Prevailing wages applied
- Installation includes receiving and offload by installer.
- Permits Excluded. To be handled internally by Client/Owner.
- Geotech Report by others. If no Geotech report is available, prescribed values to be used for engineered footer details.
- Spoils removed from site.
- Landscape alterations/corrections by client if required.
- Landscape irrigation plan required to locate and avoid lines.
- Re-route of irrigation by others if required.

ACCEPTANCE By signing below, you acknowledge and agree to our estimate, contract, exclusions, conditions, payments, and Terms and Conditions attached shall comprise to be the Agreement. The values shown above represent a specific scope; no other work should be assumed unless specifically noted in the text of the above line items.

Failure to pay any amount when due shall cause interest to begin to accrue at 12% per annum on the entire unpaid amount of the Agreement. Any late payment will cause Client being responsible for a 2% late fee on any late payment. Any action by SPEC to enforce collection of Agreement amount owed, Client must pay all attorney fees and costs.

| | |
|---|---|
| SUBTOTAL | 144,566.53 |
| TAX | 5,071.39 |
| **TOTAL** | **$149,637.92** |

Please write checks to

Specified Play Equipment Co (SPEC Play)

121 #1 Industrial Road

Belmont, CA 94002

Accepted By

Accepted Date

Please write checks to
Specified Play Equipment Co (SPEC Play)
121 #1 Industrial Road
Belmont, CA 94002

SPECIFIED PLAY EQUIPMENT CO.

121 #1 INDUSTRIAL RD. BELMONT. CA 94002
www.SPECPLAY.com | 800.475.1071

*Next Steps - Please Contact Jonny or Chris with questions, revisions, or official quotes:*

*Jonathan Stalie: Jonathan@specplay.com*
*Chris Olsen: c.olsen@specplay.com*

*Specified Play Equipment Company*
*121 #1 Industrial Road Belmont, CA 94002*

*Contact Information*
*O: (800) 475.1071*
*C: (650) 769.0761*

# STAFF REPORT

OAKLEY
CALIFORNIA

**DATE:** July 11, 2023

Approved and Forwarded to the City Council

**TO:** Joshua McMurray, City Manager

**FROM:** Jeri Tejeda, Human Resources Director

**SUBJECT:** Adopt a Resolution approving a side letter to the Oakley Police Officers Association Memorandum of Understanding

## Background and Analysis

The memorandum of understanding (MOU) with the Oakley Police Officers Associations (OPOA) was approved at the May 24,2022 council meeting.

The MOU is a five-year document, starting July 1, 2022 and expiring June 30, 2027. From time to time and if agreed upon by both parties, there may be a need for updated language to help clarify an intent of an item, or to ensure consistency on how things are applied. When these are identified, we will look to improve upon the language in the form of a side letter.

With the continued growth in the Police Department, a new Special Services Team (SST) is being established. This team was referred to previously as Problem Oriented Policing (POP). When assigned to this team, officers and sergeants will receive special assignment pay.

This side letter updates the naming of the team to ensure special assignment pay is applied and accepted by CalPERS as we are required to have an agreement in place. This does not change the intent of the previous language and does not affect the overall budget.

City Staff, Police Management and the OPOA board have discussed this side letter and all agree this is in the best interest of all parties involved. It is further agreed that this will take effect as of July 9, 2023 which is when the shift change in the Police Department will occur and when the SST team will be selected.

## Consistency with the Oakley Strategic Plan 27+

This item is consistent with our strategic plan, sustainable organization goal. By clarifying language so that it can be applied consistently it will help us to build trust at City Hall as well as reinforce Team Oakley through communication and transparency.

## Fiscal Impact

There is no fiscal impact related to this item.

## Staff Recommendation

Adopt a Resolution approving a side letter to the Oakley Police Officers Association Memorandum of Understanding.

## Attachments

1. Resolution
2. Side Letter

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF APPROVING A SIDE LETTER TO THE OAKLEY POLICE OFFICERS ASSOCIATION MEMORANDUM OF UNDERSTANDING**

**WHEREAS**, the Oakley Police Officers Association (OPOA) and the City have a memorandum of understanding (MOU) that was approved at the May 24, 2022 council meeting, and

**WHEREAS**, The Police Chief has made a change to a special assignment unit, and

**WHEREAS**, the intent of the MOU is not changing, and

**WHEREAS**, Problem Oriented Policing (POP) is being changed to Special Services Team (SST), and

**WHEREAS**, it is agreed that updating language will allow for the name change to be considered compensable by CalPERS, and

**WHEREAS**, it is further agreed this will take effect July 9, 2023 with the shift change, and

**WHEREAS**, City Staff, Police Management and the OPOA board have discussed this side letter and all agree it is the best interest of all parties involved,

**NOW, THEREFORE, BE IT RESOLVED** that the City Council of the City of Oakley hereby approves the following:

The Side Letter to the Memorandum of Understanding for the Oakley Police Officers Association.

The foregoing resolution was introduced at a regular meeting of the Council of the City of Oakley held on the 11th day of July 2023 by the following vote:

AYES:
NOES:
ABSTENTIONS:
ABSENT:

**APPROVED:**

_____
Aaron Meadows, Mayor

**ATTEST:**

_____
Libby Vreonis, City Clerk Date

DocuSign Envelope ID: A9260440-055E-4EA3-A240-21CB40608BDD

# SIDE LETTER OF AGREEMENT TO THE MEMORANDUM OF UNDERSTANDING BETWEEN THE OAKLEY POLICE OFFICERS ASSOCIATION AND THE CITY OF OAKLEY

This Side Letter of Agreement is entered into by and between the Oakley Police Officers Association and the City of Oakley effective July 1, 2022. The items listed in this Agreement shall supersede any provisions included in the current Memorandum of Understanding (MOU). The parties agree to the following Terms and Conditions:

2. Special Assignments

**g. Police Liaison - Special Services Team (SST)**

Any employee assigned to SST shall receive a five percent (5%) augmentation to base salary in the first full pay period following being assigned to SST.

| City of Oakley | | Oakley Police Officers' Association | |
|---|---|---|---|
| DocuSigned by: Joshua McMurray 2571533459F6461... | 6/21/2023 | DocuSigned by: E17607B7EBC443B... | 6/21/2023 |
| **Joshua McMurray, City Manager** | **Date** | **Tyler Radcliffe, President** | **Date** |

DocuSign Envelope ID: A9260440-055E-4EA3-A240-21CB40608BDD

# SIDE LETTER OF AGREEMENT TO THE MEMORANDUM OF UNDERSTANDING BETWEEN THE OAKLEY POLICE OFFICERS ASSOCIATION AND THE CITY OF OAKLEY

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2. Special Assignments

**g. Police Liaison - ~~Problem Oriented Policing (POP)~~Special Services Team (SST)**

Any employee assigned ~~as a POP Officer~~to SST shall receive a five percent (5%) augmentation to base salary in the first full pay period following being assigned to ~~POP~~SST.

| City of Oakley | | | Oakley Police Officers' Association | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| Joshua McMurray, City Manager | | Date | Tyler Radcliffe, President | | Date |

# STAFF REPORT

OAKLEY
CALIFORNIA

**DATE:** July 11, 2023

**TO:** Joshua McMurray, City Manager

**FROM:** Jeri Tejeda, Human Resources Director

Approved and Forwarded to the City Council

**SUBJECT:** Adopt a Resolution authorizing the City Manager to Execute a Consulting Services Agreement with the Public Safety Family Counseling Group, Inc. to provide training and support related to critical incidents as well as counseling services on an as needed basis for members of the Oakley Police Department.

## Background and Analysis

Our Police Officers are called upon to handle critical incidents on almost a daily basis. These incidents can be mild to severe but affect each individual officer differently. A series of incidents in a short time period may have a greater effect on these officers.

This contract will establish a Peer Support Team within our department. It will also provide a Critical Stress Management Program along with 24/7 program response and support services. These programs will train our staff on what to look for during and after a critical incident. It will also provide us with the support of trained professionals who will be available at any time to assist with this support.

Although individual critical incidents may not require support services, sometimes a series of these incidents in a short time period will. This contract will also establish services with a licensed clinician to provide up to 10 individual sessions per year to assist our Police personnel with anything they need, whether it be on or off the job.

As the environment around police continues to change, this contract is critical to providing our staff with the resources they need. The Public Safety Counseling Group is specific to law enforcement and all individuals working for them have some sort of tie to the law enforcement community. They are available immediately upon request without the need for an officer who is reaching out for help to have to wait for the next available appointment, which can be weeks, through our current system.

In addition to the original contract amount the City may need to increase the number of sessions for an individual or send peer counselors to training. This will be an additional cost to the flat rate provided in Exhibit A.

This contract will be a two year contract with the ability to renew on one year increments. The contract cost will increase by 5% after the two year term is complete.

## Consistency with the Oakley Strategic Plan 27+

This item is consistent with our strategic plan, sustainable organization goal. Specifically covering the objective of employee wellness. This contract will provide specific support tailored directly to our law enforcement personnel and will continue to encourage a safe and healthy working environment.

## Fiscal Impact

The contract is included in the 2023/2024 Police budget, within the General Fund, and will not exceed $50,000.

## Staff Recommendation

Adopt a Resolution authorizing the City Manager to Execute a Consulting Services Agreement with the Public Safety Family Counseling Group, Inc. to provide training and support related to critical incidents as well as counseling services on an as needed basis for members of the Oakley Police Department.

## Attachments

1. Resolution
2. Contract

**RESOLUTION NO. XX-23**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OAKLEY AUTHORIZING THE CITY MANAGER TO EXECUTE A CONSULTING SERVICES AGREEMENT WITH THE PUBLIC SAFETY FAMILY COUNSELING GROUP, INC TO PROVIDE TRAINING AND SUPPORT RELATED TO CIRITICAL INCIDENTS AS WELL AS COUNSELING SERVICES ON AN AS NEEDED BASIS FOR MEMBERS OF THE OAKLEY POLICE DEPARTMENT**

**WHEREAS**, the SP27+ has an objective of employee wellness in the sustainable organization goal, and

**WHEREAS**, the Oakley Police Department responds often to critical incidents, some in which our officers would benefit from peer support or counseling, and

**WHEREAS**, the Public Safety Counseling Group would be available to our officers 24/7, 365 days per year, and

**WHEREAS**, the training and support services provided will be specific to law enforcement, and

**NOW, THEREFORE, BE IT RESOLVED** that the City Council of the City of Oakley hereby approves the following:

Authorize the City Manager to execute a consulting services agreement with the Public Safety Family Counseling Group, Inc to provide training and support related to critical incidents as well as counseling services on an as needed basis for the members of the Oakley Police Department as outlined in Exhibit A of the contract. This agreement will be a two-year agreement with the option to renew annually.

**PASSED AND ADOPTED** by the City council of the City of Oakley this 11th day of July 2023 by the following vote:

AYES:
NOES:
ABSTENTIONS:
ABSENT:

APPROVED:

_____
Aaron Meadows, Mayor

ATTEST:

_____
Libby Vreonis, City Clerk

_____
Date

**SHORT FORM**
**SERVICES AGREEMENT BETWEEN**
**THE CITY OF OAKLEY AND**
**PUBLIC SAFETY FAMILY COUNSELING GROUP, INC**

THIS SERVICES AGREEMENT for professional consulting services is entered into by and between the City of Oakley, a municipal corporation in the State of California (hereinafter referred to as "City") and **Public Safety Family Counseling Group, INC**, a full service consulting firm (hereinafter referred to as "Contractor") effective as of July 1, 2023 ("Effective Date").

**Section I. SERVICES.** Subject to the terms and conditions set forth in this Agreement, Contractor shall provide to City the services described in the Scope of Work attached hereto and incorporated herein as Exhibit A at the time and place and in the manner specified therein. In the event of a conflict in or inconsistency between the terms of this Agreement and Exhibit A, the Agreement shall prevail.

**1.1 Term of Services.** The term of this Agreement shall begin on the date first noted above and shall continue until June 30, 2025.

**1.2 Standard of Performance.** Contractor shall perform all services required pursuant to this Agreement in the manner and according to the standards observed by a competent practitioner of the profession in which Contractor is engaged in the general geographical area of the City. Contractor shall prepare all work products required by this Agreement in a substantial, first-class manner and shall conform to the standards of quality normally observed by a person practicing in Contractor's profession.

**1.3 Assignment of Personnel.** Contractor shall assign only competent personnel to perform services pursuant to this Agreement. In the event that City, in its sole discretion, at any time during the term of this Agreement, desires the reassignment of any such persons, Contractor shall, immediately upon receiving notice from City of such desire of City, reassign such person or persons.

**1.4 Time.** Contractor shall devote such time to the performance of services pursuant to this Agreement as may be reasonably necessary to meet the standard of performance provided in Section 1.1 above and to satisfy Contractor's obligations hereunder.

**Section 2. COMPENSATION.** City hereby agrees to pay Contractor a sum not to exceed the amount described in Exhibit A, attached hereto and incorporated herein. City shall pay Contractor for services rendered pursuant to this Agreement at the time and in the manner set forth herein. These payments shall be the only payments from City to

Contractor for services rendered pursuant to this Agreement. Contractor shall submit invoices to City each month for services provided.

Contractor and City acknowledge and agree that compensation paid by City to Contractor under this Agreement is based upon Contractor's estimated costs of providing the services required hereunder, including salaries and benefits of employees and subcontractors of Contractor. Consequently, the parties further agree that compensation hereunder is intended to include the costs of contributions to any pensions and/or annuities to which Contractor and its employees, agents, and subcontractors may be eligible. City therefore has no responsibility for such contributions beyond compensation required under this Agreement.

**2.1** **Invoices.** Contractor shall submit invoices during the term of this Agreement, as outlines in Exhibit A. Invoices shall be on Contractor's Letterhead (or formal invoice form) and contain the following information:

- HIPAA protected or legally privileged information shall not be included in any invoice at any time.

**2.2** **Payment of Taxes.** Contractor is solely responsible for the payment of employment taxes incurred under this Agreement and any similar federal or state taxes.

**2.3** **Payment upon Termination.** In the event that the City or Contractor terminates this Agreement pursuant to Section 8, the City shall compensate the Contractor for all amounts due for work satisfactorily completed as of the date of written notice of termination.

**2.4** **Authorization to Perform Services.** The Contractor is not authorized to perform any services or incur any costs whatsoever under the terms of this Agreement until receipt of authorization from the Contract Administrator.

**Section 3.** **FACILITIES AND EQUIPMENT.** Except as set forth herein, Contractor shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the services required by this Agreement.

**Section 4.** **RECYCLING REQUIREMENTS.** Contractor agrees to comply with all City recycling requirements for matters directly related to this Agreement performed within City of Oakley jurisdictional boundaries, and as set forth in the Oakley Municipal Code, including, but not limited to:

a. Construction and Demolition. Contractor must contact a customer service representative (CSR) at Oakley Disposal Service, Inc. to arrange for service for any and all construction and demolition work to be performed as part of this project unless Contractor has been approved by the City as a "self-hauler" as defined in Oakley Municipal Code §4.20.308. The CSR will ask if the drop box contains

recycle material and will direct the Contractor to drop the construction and demolition debris, including dirt and cement, to a permitted processing facility. The Contractor must indicate on their order form, by checking the applicable box, that they need documentation to comply with the Oakley Municipal Code. This documentation must be provided to the City within ten (10) days of receipt of said documentation by Contractor.

b. Commercial Self-Haul. Business self-haul materials are accepted at various Oakley Disposal Service, Inc. local facilities for recycling and include, but are not limited to, wood, inerts, metals, tires, greenwaste, plastics, cardboard, mattresses, foam padding, propane tanks, e-waste and appliances. Contractor agrees to drop any and all business self-haul materials at a site designated on the website www.cccounty.us/depart/cd/recycle/.

c. Road Maintenance and Construction Projects. Contractor agrees to recycle greenwaste, asphalt, concrete and metal from any and all road maintenance and construction projects at Oakley Disposal Service, Inc. designated locations.

d. Office Recyclables. If Contractor has an office, temporary office, or trailer within the City of Oakley, Contractor agrees to recycle all paper, cardboard, bottles, cans, and toner cartridges at Oakley Disposal Service, Inc. designated locations.

e. Special Waste Materials. Contractor shall dispose of inert materials, including, but not limited to, concrete, asphalt and rubber, at Oakley Disposal Service, Inc. designated locations. Shingles and wood waste shall be diverted to the Recycling Center and Transfer Station (RCTS) located at 3700 Loveridge Road, Pittsburg, CA 94565. Scrap metal shall be dropped off at a large-scale scrap metal recycle facility operating within Contra Costa County which may be found at www.cccrecycle.org.

f. Universal Waste. Contractor shall dispose of batteries, mercury containing devices and lamps, and certain consumer electronics at a recycling center designated by Oakley Disposal Service, Inc.

**Section 5. INSURANCE REQUIREMENTS.** Before beginning any work under this Agreement, Contractor, at its own cost and expense, shall procure "occurrence coverage" insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Contractor and its agents, representatives, employees, and subcontractors. Contractor shall provide proof satisfactory to City of such insurance that meets the requirements of this section and under forms of insurance satisfactory in all respects to the City. Contractor shall maintain the insurance policies required by this section throughout the term of this Agreement. The cost of such insurance shall be included in the Contractor's bid. Contractor shall not allow any subcontractor to commence work on any subcontract until Contractor has obtained all insurance required herein for the subcontractor(s) and provided evidence thereof to City. Verification of the required insurance shall be submitted

and made part of this Agreement prior to execution. Verification of the required insurance is attached hereto and incorporated herein as Exhibit B.

**5.1** **Variation.** The City may approve a variation in the foregoing insurance requirements, upon a determination that the coverages, scope, limits, and forms of such insurance are either not commercially available, or that the City's interests are otherwise fully protected.

**5.2** **Notice of Reduction in Coverage.** In the event that any coverage required by this section is reduced, limited, or materially affected in any other manner, Contractor shall provide written notice to City at Contractor's earliest possible opportunity and in no case later than five calendar days after Contractor is notified of the change in coverage.

**5.3** **Remedies.** In addition to any other remedies City may have if Contractor fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, City may, at its sole option exercise any of the following remedies, which are alternatives to other remedies City may have and are not the exclusive remedy for Contractor's breach:

- Obtain such insurance and deduct and retain the amount of the premiums for such insurance from any sums due under the Agreement;
- Order Contractor to stop work under this Agreement or withhold any payment that becomes due to Contractor hereunder, or both stop work and withhold any payment, until Contractor demonstrates compliance with the requirements hereof; and/or
- Terminate this Agreement.

## Section 6. INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES

**6.1.** Contractor shall, to the fullest extent permitted by law, indemnify, defend (with counsel acceptable to the City) and hold harmless City, and its employees, officials, volunteers and agents ("Indemnified Parties") from and against any and all losses, claims, damages, costs and liability (including but not limited to loss of use, loss of profits or loss of goodwill arising in any manner from the work) arising out of any personal injury, loss of life, damage to property, or any violation of any federal, state, or municipal law or ordinance, arising out of the performance of this Agreement by Contractor, its officers, employees, agents, volunteers, subcontractors or sub-Contractors, excepting only liability arising from the sole negligence, active negligence or intentional misconduct of City.

**6.2.** Acceptance by City of insurance certificates and endorsements required under this Agreement does not relieve Contractor from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shalt apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply.

**6.3.** By execution of this Agreement, Contractor acknowledges and agrees to the provisions of this Section and that it is a material element of consideration, and that these provisions survive the termination of this Agreement.

## Section 7. STATUS OF CONTRACTOR.

**7.1** **Independent Contractor.** At all times during the term of this Agreement, Contractor shall be an independent contractor and shall not be an employee of City. City shall have the right to control Contractor only insofar as the results of Contractor's services rendered pursuant to this Agreement and assignment of personnel pursuant to Subparagraph 1.3; however, otherwise City shall not have the right to control the means by which Contractor accomplishes services rendered pursuant to this Agreement, Notwithstanding any other City, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Contractor and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by City, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of City and entitlement to any contribution to be paid by City for employer contributions and/or employee contributions for PERS benefits.

**7.2** **Contractor, Not Agent.** Except as City may specify in writing, Contractor shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to this Agreement to bind City to any obligation whatsoever.

## Section 8. LEGAL REQUIREMENTS.

**8.1** **Governing Law.** The laws of the State of California shall govern this Agreement.

**8.2** **Compliance with Applicable Laws.** Contractor and any subcontractors shall comply with all laws applicable to the performance of the work hereunder.

**8.3** **Other Governmental Regulations.** To the extent that this Agreement may be funded by fiscal assistance from another governmental entity, Contractor and any subcontractors shall comply with all applicable rules and regulations to which City is bound by the terms of such fiscal assistance program.

**8.4** **Licenses and Permits.** Contractor represents and warrants to City that Contractor and its employees, agents, and any subcontractors have all licenses, permits, qualifications, and approvals of whatsoever nature legally required to practice their respective professions. Contractor represents and warrants to City that Contractor and its employees, agents, any subcontractors shall, at their sole cost and expense, keep in effect at all times during the term of this Agreement any licenses, permits, and approvals that are legally required to practice their respective professions. In addition to the foregoing, Contractor and any subcontractors shall obtain and maintain during the term of this Agreement valid business licenses from City.

**8.5** **Nondiscrimination and Equal Opportunity.** Contractor shall not discriminate, on the basis of a person's race, religion, color, national origin, age, physical or mental handicap or disability, medical condition, marital status, sex, or sexual orientation, against any employee, applicant for employment, subcontractor, bidder for a subcontract, or participant in, recipient of, or applicant for any services or programs provided by Contractor under this Agreement. Contractor shall comply with all applicable federal, state, and local laws, policies, rules, and requirements related to equal opportunity and nondiscrimination in employment, contracting, and the provision of any services that are the subject of this Agreement, including but not limited to the satisfaction of any positive obligations required of Contractor thereby.

Contractor shall include the provisions of this Subsection in any subcontract approved by the Contract Administrator or this Agreement.

## Section 9. TERMINATION AND MODIFICATION.

**9.1** **Termination.** City may cancel this Agreement at any time and without cause upon written notification to Contractor.

Contractor may cancel this Agreement upon 30 days written notice to City and shall include in such notice the reasons for cancellation.

In the event of termination, Contractor shall be entitled to compensation for services performed to the effective date of termination.

**9.2** **Amendments.** The parties may amend this Agreement only by a writing signed by all the parties.

**9.3** **Assignment and Subcontracting.** City and Contractor recognize and agree that this Agreement contemplates personal performance by Contractor and is based upon a determination of Contractor's unique personal competence, experience, and specialized personal knowledge. Moreover, a substantial inducement to City for entering into this Agreement was and is the professional reputation and competence of Contractor. Contractor may not assign this Agreement or any interest therein without the prior written approval of the Contract Administrator. Contractor shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors noted in the proposal, without prior written approval of the Contract Administrator.

**9.4** **Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between City and Contractor shall survive the termination of this Agreement.

**9.5** **Breach by Contractor.** If Contractor materially breaches any of the terms of this Agreement, City may immediately terminate the Agreement.

## Section 10. KEEPING AND STATUS OF RECORDS.

**10.1** **Records Created as Part of Contractor's Performance.** Ownership of records created under this Agreement shall be treated as provided in Exhibit A, section 4.3.

**10.2** **Contractor's Books and Records.** Contractor shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services or expenditures and disbursements charged to the City under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Contractor to this Agreement,

**10.3** **Inspection and Audit of Records.** Any records or documents that Section 9.2 of this Agreement requires Contractor to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the City. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds TEN THOUSAND DOLLARS ($10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of City or as part of any audit of City, for a period of three (3) years after final payment under the Agreement. Privileged or HIPAA protected information shall remain confidential subject to the terms of Exhibit A Compensation section 4.5 HIPAA Requirements.

## Section 11 MISCELLANEOUS PROVISIONS.

**11.1** **Venue.** In the event that either party brings any action against the other under this Agreement, the parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Contra Costa or in the United States District Court for the Northern District of California.

**11.2** **Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

**11.3** **No Implied Waiver of Breach.** The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

**11.4** **Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the parties.

**11.5** **Use of Recycled Products.** Contractor shall prepare and submit all reports, written studies and other printed material on recycled paper to the extent it is available at equal or less cost than virgin paper.

**11.6** **Conflict of Interest.** Contractor may serve other clients, but none whose activities within the corporate limits of City or whose business, regardless of location, would place Contractor in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 et seq.

Contractor shall not employ any official of City in the work performed pursuant to this Agreement. No officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 et seq.

Contractor hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of the City. If Contractor was an employee, agent, appointee, or official of City in the previous twelve months, Contractor warrants that it did not participate in any manner in the forming of this Agreement. Contractor understands that, if this Agreement is made in violation of Government Code §1090 et. Seq., the entire Agreement is void and Contractor will not be entitled to any compensation for services performed pursuant to this Agreement, including reimbursement of expenses, and Contractor will be required to reimburse the City for any sums paid to the Contractor. Contractor understands that,

in addition to the foregoing, it may be subject to criminal prosecution for a violation of Government Code § 1090 and, if applicable, will be disqualified from holding public office in the State of California.

**11.7 Inconsistent Terms.** If the terms or provisions of this Agreement conflict with or are inconsistent with any term or provision of any attachment or Exhibit attached hereto, then the terms and provisions of this Agreement shall prevail.

**11.8 Reserved.**

**11.9 Contract Administration.** This Agreement shall be administered by Joshua McMurray, City Manager ("Contract Administrator"). All correspondence shall be directed to or through the Contract Administrator or his or her designee.

**11.10 Notices.**

Any written notice to Contractor shall be sent to:

**Public Safety Family Counseling Group, INC**
**Attn: Scott Dansie, Operations Manager**
**3381 Walnut Blvd., Suite 210**
**Brentwood, CA 94513**

Any written notice to City shall be sent to:

**City of Oakley**
**Joshua McMurray, City Manager**
**3231 Main Street**
**Oakley, CA 94561**

**11.11 Integration.** This Agreement, including the attached exhibits, represents the entire and integrated agreement between City and Contractor and supersedes all prior negotiations, representations, and agreements, either written or oral.

**11.12 Counterparts.** This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.

**11.13 Authorized Signature.** Each person and party signing this Agreement warrants that he/she has the authority to execute this Agreement on behalf of the principal and that the party will be bound by such signature.

The parties have executed this Agreement as of the Effective Date.

**CITY:**

City of Oakley, a municipal corporation In the State of California

Joshua McMurray, City Manager

**CONTRACTOR:**

Public Safety Family Counseling Group, INC

Elizabeth Dansie, President

Attest:

Libby Vreonis, City Clerk

Approved as to Form:

Derek Cole, City Attorney

# EXHIBIT A

## Scope of Work/Compensation Schedule

# Public Safety Family Counseling Group, INC.

# Exhibit A – Scope of Services and Compensation

## SCOPE OF SERVICES

The primary purpose of this service contract is the ongoing support, consultation, and training of peer support and Critical Incident Stress Management (CISM) programs while providing 24/7/365 response and support services to the City of Oakley Police Department (City) and its personnel.

## BASE SERVICES

1. 24/7 On-Call/Standby Availability

    1.1. Consultant will be available 24 hours a day, 7 days a week for Crisis Response and Stabilization Services for City and City's personnel.

2. Crisis Response and Stabilization services. Such services may include, but are not limited to critical incident stress debriefings, crisis management briefings, on-site response, crisis intervention, and in person consultation as necessary following extraordinary events encountered by City's personnel or impacting the performance of City personnel's duties.

    2.1. Crisis Response and Stabilization Services may be rendered at City's offices, in the field, at Consultant's offices, or virtually as approved by Consultant.

    2.2. In the event that Consultant is requested to respond to an active scene or incident, City personnel shall accompany Consultant when requested.

3. Individual Crisis Stabilization and Counseling Services

    3.1. Consultant will provide Individual Crisis Stabilization and Counseling Services as requested for City personnel, including 24/7 availability as needed.

    3.2. Consultant will provide first responder specialized support and short-term individual crisis intervention and, as necessary, appropriate professional referrals to City's employee assistance program or other suitable venue when indicated.

        3.2.1. Short-term individual crisis intervention is defined as up to ten (10) one-on-one crisis intervention sessions per year without the need for referral or authorization from City. Such sessions may be provided either in-person at Consultant's offices or virtually.

        3.2.2. In the event that an employee requires more than ten (10) hours of service per quarter, the City employee seeking service shall obtain written authorization in advance from City or authorize Consultant to contact City on behalf of the affected employee. The authorization process shall not require Consultant to disclose of the affected employee's crisis or other HIPAA information without the employee's consent.

        3.2.3. In the event that an employee self-refers, or is directed or referred by City, because of a suicidal crisis, services shall be rendered without regard to session or time limits until one of the following occurs. The suicidal crisis is stabilized, abated, or the affected employee

is referred to a higher level or other suitable care. City agrees to compensate Consultant according to Compensation section 2 in the event that this clause is triggered without the need for additional authorization.

3.2.4. Referrals to third party services such as employee assistance programs, outside wellness training, or recovery/treatment retreats are not covered under this Agreement and are subject to other agreements between City and the third-party provider.

4. Telephone, email, and virtual Consultations

4.1. Expert collaboration with City Personnel regarding issues related to Critical Incident Stress, crisis intervention, education needs, organizational matters, and other psychological services as requested.

4.2. Provide on-going consultation to the City's Peer Support Team on topics including, but not limited to, program development, team selection, and team operations.

4.3. Consult with City Personnel regarding critical incident stress management support education services for line, supervisory, and management staff as requested.

4.4. Unlimited telephone, email, and virtual consultations are provided as "Base Services" under this agreement.

5. Peer Support Team Member Services

5.1. Consultant will provide one, one-on-one check-in appointments per year for each peer support team member, coordinator, and liaison for the purpose of fostering professional wellness in their assigned role and to support positive wellness habits.

6. Training Services

6.1. Introductory Program Presentations

6.1.1. Upon request, Consultant will conduct up to six introductory shift briefing presentations for the purpose of introducing Consultant's firm, services, and program goals. Consultant will also solicit and compile peer support team member nominations following a blind nomination process when requested by City.

6.1.2. City agrees to arrange for professional, non-sworn, and other administrative personnel to attend one of the aforementioned trainings.

6.2. Command Presentation and Training

6.2.1. Upon request, Consultant will conduct one, one hour presentation and training for Command Staff in order to familiarize them with CISM and peer support team program goals and operations.

6.3. Management/Supervisory Presentation and Training

6.3.1. Upon request, Consultant will conduct one, two-hour presentation and training for management and supervisory staff in order to familiarize them with CISM and peer support team program goals and operations.

6.4. Line Personnel Training

6.4.1. Upon request, Consultant will provide two, four-hour training blocks covering CISM, wellness, and resiliency for line level personnel.

6.4.2. Training will be presented at City facilities or virtually and may be open to outside agencies upon City's request with Consultant approval.

6.5. Initial Peer Support Team Member Training

6.5.1. International Critical Incident Stress Foundation (ICISF) basic peer support training is required for all peer support team members. The basic peer support training consists of the 32-hour Group Crisis Intervention and Assisting Individuals In Crisis courses (GRIN). GRIN training is not included in the base fee of this Agreement.

6.5.1.1. City may elect to host an ICISF GRIN course for its personnel or may elect to send personnel to a course hosted by another entity, at City's sole discretion. Hosting a GRIN course may be incorporated into this Agreement for an additional fee. Sending personnel to an outside course is subject to the prevailing attendance fee at the time of the course.

6.6. Regional Peer Support Continuing Education Training

6.6.1. Participation in Regional Peer Support Continuing Education Training for all City designated liaisons, coordinators, and peers is included as a Base Service.

6.6.2. Participating agencies share a rotating responsibility for hosting Regional Peer Support and Coordinator Meetings. Responsibility for hosting said trainings and meetings is split among participating agencies on a rotating basis.

6.6.3. Regional training may be offered in person or via a virtual electronic platform.

7. Meetings

7.1. Upon request, Consultant will help facilitate and attend peer support team meetings exclusively for City's peer support team members. Said meetings shall be set up by a Peer Support Team Coordinator or Liaison and should occur once per quarter. These meetings may be held/attended in-person or virtually. Four quarterly meetings are included in the base price of this Agreement.

7.2. Upon request, Consultant will help facilitate and attend a bimonthly (occurring every other month) peer support team coordinator and liaison meeting. Said meetings shall be set up by a peer support team coordinator or liaison. These meetings may be held/attended in-person or virtually. Six team coordinator meetings are included in the base price of this Agreement.

7.3. Consultant shall attend Command Staff meetings as requested for the purpose of discussing and making recommendations as to CISM and peer support program needs and goals.

8. Policy Development and Review

    8.1. Consultant will supply City with a Sample Peer Support Policy and assist City personnel with review and recommendations for creating a comprehensive Peer Support Team and CISM Policy.

    8.2. City shall have their own City Attorney and/or risk manager review any recommended policy prior to implementation. City is responsible for ensuring that any proposed policy is compliant with city, state, and federal law.

9. When City requests services to be rendered onsite, City shall make suitable space available to Consultant. When suitable space is not available, City shall make other location arrangements appropriate for the services to be rendered.

10. When Consultant is unavailable or unable to render services as indicated above, Consultant shall make necessary arrangements for referral to appropriate mental health professionals for coverage and make contact information available to City personnel.

11. Consultant shall not be responsible for computer, video, audio, or other technological needs for City or City's personnel to attend training or access services.

**ADDITIONAL SERVICES**

1. Additional Individual Crisis Stabilization and Counselling Services

    1.1. The City may elect to authorize additional Individual Crisis Stabilization and Counselling Services for impacted employees (beyond the 10 sessions per year afforded under section 2) on a case-by-case basis.

2. Additional Training and Meeting Services

    2.1. Consultant may provide Critical Incident Stress Management or other training services within Consultant's scope of practice for line, supervisory, and management staff as requested by City.

        2.1.1. Training requests must be submitted at least 90 days in advance.

    2.2. Consultant may provide or attend additional meetings or other gatherings beyond those outlined above as requested by City.

**COMPENSATION**

1. City shall compensate Consultant a flat base fee of $40,000.00 for "Base Services" as outlined under Scope of Services Sections 1 through 11, except where noted otherwise and subject to the following provisions.

    1.1. Services may be rendered in-person, via telephone, email, or virtual platform based on the specific circumstances, nature, and needs of the service, City, and Consultant. Response services shall be provided in-person except under extraordinary circumstances.

1.2. Regional Peer Support Continuing Education Training may be provided in person or virtually and may be rescheduled, postponed, or cancelled for extraordinary events.

1.3. When Consultant is unavailable or unable to 24/7 standby/on-call availability, Consultant shall make necessary arrangements for referral to appropriate mental health professionals for coverage and any expense incurred by Consultant in doing so shall be the sole responsibility of Consultant.

2. Individual Crisis Stabilization and Counseling Services authorized beyond the 10 sessions per quarter outlined under "Base Services" section 2 and provided in Consultant's offices shall be compensated at a rate of $225.00 per hour on an "as-utilized" basis.

3. Additional Training and Meeting Services requested by City outside those outlined in base services and provided by consultant shall be compensated at a rate of $250.00 per hour on an "as-utilized" basis.

3.1.1. Billing for Additional Training and Meeting Services shall include course development or preparation time as required to create or adapt training or otherwise prepare for presentation to City.

3.1.2. All services rendered away from Consultant's office in Brentwood, CA are billed "portal-to-portal" and include all time spent for travel, stand-by, or onsite.

3.1.3. ICISF licensed training courses are subject to the following additional approximated fees.

| | |
|---|---|
| ICISF Registration and Licensing | $400 per course |
| Materials Fees | $150 per person |
| ICISF Certificates | $15 per course, per person |

3.1.4. During the term of this Agreement, the International Critical Incident Stress Foundation courses titled Group Crisis Intervention and Assisting Individuals in Crisis (GRIN) may be offered at the flat rate of $18,000.00 per session. This course is subject to a minimum class size of 21 and a maximum class size of 42 attendees per session. Invoicing for these classes will occur when/as utilized.

4. Additional Service Terms

4.1. Services rendered under this Agreement do not include expert witness fees, deposition, court fees, representation, or testimony for or during any legal or formal administrative proceeding. Fees related to any actual or proposed action in any proceeding start at $500.00 per hour and are subject to a minimum advanced deposit prior to any required appearance.

4.2. Copyright and Right of Use

4.2.1. Any and all work, artwork, copy, posters, billboards, photographs, videotapes, audiotapes, systems designs, software, reports, designs, specifications, drawings, diagrams, surveys, source codes or any original works of authorship created by Consultant or its subcontractors or subconsultants in connection with services performed under this Agreement shall be deemed the exclusive intellectual or otherwise licensed property of Consultant and Consultant shall retain all rights therein. Consultant shall

grant a right of use license to City while the City remains under contract with Consultant and the materials are created or branded for City's use at no additional charge.

4.3. Ownership of Documents

4.3.1. All documents, data, drawings, designs, reports, studies, memoranda, or any other items or work product prepared or obtained by Consultant or its subcontractors or subconsultants in connection with services performed under this Agreement are instruments of Consultant's services. They are not intended, nor are they represented to be suitable for reuse by others on extension of this project or on any other project. Any reuse without specific, written verification and adaptation by Consultant for the specific intended purpose will be at the user's sole risk and without liability or legal exposure or expense to Consultant. Consultant shall not waive their interest in any work product created under this Agreement except where otherwise noted herein. Consultant shall grant a right of use license to City while the City remains under contract with Consultant and the materials are created or branded for City's use at no additional charge.

4.4. Third Party Insurance Verification

4.4.1. Neither Consultant nor Consultant's insurance providers are able to comply with demands from or supply documents to Third Party Insurance Verification services that City may contract with, currently or in the future, to verify independent contractors' insurance policies. In the event that City utilizes such services, City shall designate a City staff member to collect insurance documents from Consultant and resolve any verification requirements.

4.4.2. City has had the opportunity to review all of Consultant's insurance policies related to this Agreement and will certify that said insurance meets the requirements of any provisions related to insurance requirements prior to execution of this Agreement or City has agreed to waive unmet requirements if they are outside the scope of Consultant's insurance.

4.5. HIPAA Requirements

4.5.1. Confidentiality of Consultant's services and records are governed by State and Federal statues, court decisions, ethical standards, and generally accepted business practices for their profession. Notwithstanding any other section of this Agreement, no record or other identifying information, including but not limited to HIPAA protected information shall be released without a valid court order, written authorization from the individual(s) affected by the information release, or other legal authority compelling release of such information. Additionally, compliance with any audit or inspection requirement contained herein necessitates an investment of Consultant's time, efforts, and resources in order to maintain the required confidentially of records subject to audit or inspection and as such, shall be considered billable hours and compensated according to this Agreement. This section shall supersede all other sections and shall survive termination, cancellation, or expiration and remain in effect indefinitely.

4.6. Confidentiality of Consultant's Information

4.6.1. City shall not disclose any confidential or proprietary information received from Consultant, including but not limited to client information or other intellectual property, to anyone except City's employees who require access to the information to access Consultant's services without adaptation by Consultant.

4.6.2. Notwithstanding the foregoing, Consultant recognizes that City is obligated to comply with the California Public Records Act (California Government Code §§ 6252 et seq.) and that records in the possession of the City may be required to be disclosed. The City will assert exemptions to the California Public Records Act as allowed, including protecting personal contact information and other confidential information as allowed.

4.6.3. If the City receives a Public Records Act request for documents related to the Consultant, it will promptly notify the Consultant of such request. The Consultant may then seek to assert protections and privileges in court, as it may deem appropriate. The Consultant shall notify the City within 5 days if it will seek judicial intervention. If it does not, the City will release the requested documents. Nothing herein prohibits the City from asserting any exemptions to disclosure that it deems appropriate.

4.6.4. Parties agree to exercise at least the same care, control, and security over records, documents, and/or confidential information obtained from the other party as they would for their own records, documents, and/or confidential information.

4.7. Billing and Invoices

4.7.1. Consultant shall endeavor to provide a monthly utilization statement and/or invoices to the City no later than the 15th day of each month following the month in which services are provided. The utilization will include a description of services rendered and the date on which such services were provided. In addition, the monthly statement will provide a running account of hours utilized. Due to HIPAA restrictions individual client information will at no time be included in accounting information. Utilization statements shall be combined with monthly invoices for convenience. City shall pay all; undisputed invoices within 30 days of receipt.

4.7.2. City shall ensure timely requests for and utilization of Consultant's services. All services not utilized within the one-year term of this Agreement are non- refundable and will be lost as of June 30, 2023. Failure of City to utilize Consultant's services in a timely manner shall not be cause for a refund or extension of time.

4.8. Force Majeure

4.8.1. Except with respect to failure to pay any amount due under this Agreement, nonperformance of either party will be excused to the extent that performance is rendered impossible by strike, fire, flood, natural disaster, pandemic, death of Provider, public protest or riot, governmental acts that are not caused by or within the control of the nonperforming party, order or restrictions, failure of suppliers, or any other reason where failure to perform is beyond the control and not caused by the negligence of the non-performing party.

5. The term of this Agreement shall be July 1, 2023, through June 30, 2025. The term of this agreement is broken into fiscal year service periods running from July 1st through June 30th for every year this

Agreement remains in effect. This Agreement may be renewed annually via purchase order following the initial two year term.

5.1. All service rates listen herein shall increase by 5% per year for all renewals beginning after June 30, 2025.

**Exhibit B**

**Insurance Requirements**

## Specific Insurance Requirements and Required Policy Limits

**PROFESSIONAL SERVICES CONTRACTS:**

Including, but not limited to architects, engineers, consultants, counselors, attorneys and accountants.

Consultant shall procure and maintain for the duration of its contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, employees or subcontractors.

Minimum scope of coverage
Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Insurance Services Office Form CG 00 01) covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **$1,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability:** Insurance Services Office Form number CA 0001 Code 1 (any auto), or if Consultant has no owned autos, Code 8 (hired) and 9 (non-owned), with limit no less than **$1,000,000** per accident for bodily injury and property damage.
3. **Workers' Compensation** insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than **$1,000,000** per accident for bodily injury or disease.

***(Not required if Consultant provides written verification it has no employees)***

**Professional Liability** (Errors and Omissions) Insurance appropriate to the Consultant's profession, with limit no less than **$1,000,000** per occurrence or claim, **$2,000,000** aggregate. Architects and Engineers coverage shall be endorsed to include contractual liability.

If the Consultant maintains higher limits than the minimums shown above, the Entity requires and shall be entitled to coverage for the higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Entity.

**Other Insurance Provisions**

**The insurance policies, with the exception of Professional Liability Insurance, are to contain, or be endorsed to contain, the following provisions:**

***Additional Insured Status***
**The City, its officers, officials, employees, and volunteers are to be covered as additional insureds** on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts or equipment furnished in connection with such work or operations. General liability coverage should be provided in the form of an endorsement to the Consultant's insurance (at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10 and CG 20 37 forms if later revisions used).

***Primary Coverage***
For any claims related to this contract, the **Consultant's insurance coverage shall be primary** insurance as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

***Notice of Cancellation***
Each insurance policy required above shall state that **coverage shall not be canceled, except with notice to the City.**

***Waiver of Subrogation***
Consultant hereby grants to City a waiver of any right to subrogation which Consultant or any insurer of said Consultant may acquire against the City by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.

***Deductibles and Self-Insured Retentions***
Any deductibles or self-insured retentions must be declared to and approved by the City. The City may require the Consultant to provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.

***Acceptability of Insurers***
Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City.

***Claims Made Policies***
If any of the required policies provide coverage on a claims-made basis:

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.

2. Insurance must be maintained and evidence of insurance must be provided ***for at least five (5) years after completion of the contract of work.***
3. If coverage is canceled or non-renewed, and not ***replaced with another claims-made policy form with a Retroactive Date*** prior to the contract effective date, the Consultant must purchase “extended reporting” coverage for a minimum of ***five (5)*** years after completion of contract work.

***Verification of Coverage***
Consultant shall furnish the City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant’s obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

***Subcontractors***
Consultant shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that City is an additional insured on insurance required from subcontractors.

***Special Risks or Circumstances***
City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 06/09/2023

**THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.**

**IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).**

**PRODUCER**

RK Jacobs Insurance Services, Inc.
5620 Birdcage St, Suite 230
Citrus Heights CA 95610

**CONTACT NAME:** Angelica Alvarez
**PHONE (A/C, No, Ext):** (916) 526-0170 **FAX (A/C, No):** (916) 400-0262
**E-MAIL ADDRESS:** service@rkjacobsinsurance.com

| INSURER(S) AFFORDING COVERAGE | NAIC # |
|---|---|
| INSURER A : NATIONWIDE INS CO OF AMER | 25453 |
| INSURER B : NATIONWIDE MUT INS CO | 23787 |
| INSURER C : | |
| INSURER D : | |
| INSURER E : | |
| INSURER F : | |

**INSURED**

Public Safety Family Counseling Group Inc
3381 Walnut Blvd Ste 210
Brentwood CA 94513-4495

**COVERAGES** **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSD | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS | |
|---|---|---|---|---|---|---|---|---|
| A | [X] COMMERCIAL GENERAL LIABILITY<br>[ ] CLAIMS-MADE [X] OCCUR<br>GEN'L AGGREGATE LIMIT APPLIES PER:<br>[ ] POLICY [ ] PRO-JECT [X] LOC<br>[ ] OTHER: | Y | Y | ACPBPOZ3120150843 | 07/01/2023 | 07/01/2024 | EACH OCCURRENCE<br>DAMAGE TO RENTED PREMISES (Ea occurrence)<br>MED EXP (Any one person)<br>PERSONAL & ADV INJURY<br>GENERAL AGGREGATE<br>PRODUCTS - COMP/OP AGG | $ 1,000,000<br>$<br>$ 5,000<br>$ 1,000,000<br>$ 2,000,000<br>$ 2,000,000 |
| A | AUTOMOBILE LIABILITY<br>[ ] ANY AUTO<br>[ ] OWNED AUTOS ONLY [X] SCHEDULED AUTOS<br>[X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY | | | ACPBAZ3120150843 | 07/01/2023 | 07/01/2024 | COMBINED SINGLE LIMIT (Ea accident)<br>BODILY INJURY (Per person)<br>BODILY INJURY (Per accident)<br>PROPERTY DAMAGE (Per accident) | $ 1,000,000<br>$<br>$<br>$ |
| A | [X] UMBRELLA LIAB [ ] OCCUR<br>[ ] EXCESS LIAB [ ] CLAIMS-MADE<br>[ ] DED [ ] RETENTION $ | | | ACPCAZ3120150843 | 07/01/2023 | 07/01/2024 | EACH OCCURRENCE<br>AGGREGATE | $ 1,000,000<br>$ |
| B | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY<br>ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N: N<br>(Mandatory in NH)<br>If yes, describe under DESCRIPTION OF OPERATIONS below | N / A | | ACPWC3120150843 | 07/01/2023 | 07/01/2024 | [ ] PER STATUTE [ ] OTH-ER<br>E.L. EACH ACCIDENT<br>E.L. DISEASE - EA EMPLOYEE<br>E.L. DISEASE - POLICY LIMIT | $ 1,000,000<br>$ 1,000,000<br>$ 1,000,000 |

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**

The City, including its elected officials, officers, employees, agents, and volunteers are named as Additional Insured. (for both ongoing and completed operations) The above mentioned businessowners policy includes data compromise coverage with a response expense limit of $50,000 and defense and liability limit of $50,000. The above mentioned businessowners policy includes identity recovery coverage with a limit of $25,000. The above mentioned businessowners policy includes computer attack coverage with a limit of $50,000. Waiver of subrogation applies on above listed businessowner policy and when required by written contract on above listed business auto policy. Primary non contributory applies to above listed businessowner policy and 30 day advanced notice of cancellation is provided.

**CERTIFICATE HOLDER**

City of Oakley
3231 Main Street
Oakley CA 94561

**CANCELLATION**

**SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.**

**AUTHORIZED REPRESENTATIVE**



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**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

# ADDITIONAL INSURED – MUNICIPALITIES OR PUBLIC AGENCY – INSURED PROVIDING PROFESSIONAL SERVICES

This endorsement modifies insurance provided under the following:

PREMIER BUSINESSOWNERS LIABILITY COVERAGE FORM

The following is added to Section II. WHO IS AN INSURED:

The municipality and/or public agency designated in the Schedule of this endorsement is also an insured, but only with respect to liability for “bodily injury”, “property damage” or “personal and advertising injury” caused ,in whole or in part, by your acts or omissions or the acts or omissions of those acting on your behalf in connection with your operations, other than the rendering of or the failure to render professional services, advice of instruction, subject to the following additional exclusion:

This insurance, including any duty we have to defend "suits", does not apply to "bodily injury", "property damage" or "personal and advertising injury" that arises out of, in whole or in part, or is a result of, in whole or in part, the active or primary negligence of the municipality and/or public agency designated in the Schedule of this endorsement, whether or not such negligence has been assumed by you in a contract or agreement.

**All terms and conditions of this policy apply unless modified by this endorsement.**

**SCHEDULE**

**Municipality and/or Public Agency:**

CITY OF OAKLEY
3231 MAIN STREET
OAKLEY CA 94561

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

# AMENDMENT – ADVANCED NOTICE – CANCELLATION OR MATERIAL COVERAGE REDUCTION

This endorsement modifies insurance provided under the following:

PREMIER BUSINESSOWNERS COMMON POLICY CONDITIONS

In the event of cancellation (other than non-payment of premium) or material change that reduces or restricts the insurance afforded by this Policy, we agree to mail prior written notice of cancellation or material change to:

**SCHEDULE**

**Name and Address:**

CITY OF OAKLEY
3231 MAIN STREET
OAKLEY CA 94561

**Number of Days Advance Notice:** 30

**All terms and conditions of this policy apply unless modified by this endorsement.**

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**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

# WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

PREMIER BUSINESSOWNERS COMMON POLICY CONDITIONS

**SCHEDULE**

**Name Of Person Or Organization:**

CITY OF OAKLEY
3231 MAIN STREET
OAKLEY CA 94561

In condition K. TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US, under paragraph 2. Applicable to Businessowners Liability Coverage, the following paragraph is added:

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

**All terms and conditions of this policy apply unless modified by this endorsement.**

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Approved and Forwarded to the City Council

**DATE:** July 11, 2023
**TO:** Joshua McMurray, City Manager
**FROM:** Ken Strelo, Planning Manager
**SUBJECT:** Sellers Avenue Subdivision 9614 Rezone, Vesting Tentative Map, Final Development Plan, and Design Review (RZ 01-22, TM 01-22, FDP 01-22, DR 01-22) – Request for approval of a Rezone to P-1 (Planned Unit Development) District, a Vesting Tentative Map to subdivide approximately 20.42 acres into 77 single family residential lots, a Final Development Plan in conjunction with the P-1 District, and Design Review. APNs 033-150-013.

## Summary

This is an application by MLC Holdings ("Applicant") requesting approval of: 1) a Rezone (RZ 01-22) to amend an existing P-1 District; 2) a Vesting Tentative Map (TM 01-22) subdividing approximately 20.42 acres into 77 single residential lots, stormwater detention treatment area, and neighborhood park; 3) a Final Development Plan (FDP 01-22) in conjunction with the project's P-1 District; and 4) Design Review (DR 01-22) for floor plans and architecture, and conceptual landscape plans ("Project"). The proposed homes consist of two single-story and two two-story house plans each with three elevations. Floor plans range from 2,054 to 2,833 square feet of livable area. The project site is located at 5911 Sellers Avenue and is zoned P-1 (Planned Unit Development) District. (APNs: 033-150-013).

## Background

### GENERAL PLAN

Residential Low (RL) – Per Oakley General Plan Table 2-2: Land Use Designations, the "Residential Low (RL) designation provides for moderate density, single-family residential development [between the densities of 2.3 to 3.8 dwelling units per acre]. These neighborhoods will more closely resemble a typical suburban development with spacious yards and little resemblance to a rural neighborhood. Primary permitted land uses include detached single-family homes and accessory structures. Public and semi-public uses and similar and compatible uses are also allowed." The RL designation lies between the Residential Very Low (RV) (maximum 2.3 dwelling units per acre) designation, which provides for traditional, large lot single family residential development and the Residential Low/Medium (RLM) (maximum 5.5 dwelling units per acre), which provides for moderately dense single family residential development that is consistent with suburban uses. There is often an overlap between the type of

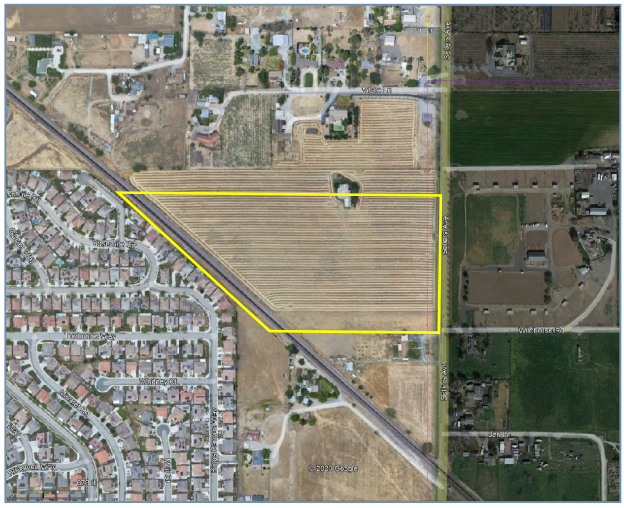
development envisioned within land use designations adjacent or near each other along the density scale.

## ZONING

P-1 (Planned Unit Development) District – P-1 Districts are normally tied to a specific development project and often contain different development regulations, such as minimum lot sizes and/or required yard setbacks from those found in the conventional zoning districts. They are typically found as part of a large-scale development, an infill development, or a General Plan special area of concern. An existing P-1 District covers the current project site. It was originally adopted with a former single-family development and vesting tentative map. The tentative map for that project has since expired and since the currently proposed project envisions a new plan, a new P-1 District is required to be adopted.

## EXISTING CONDITIONS AND SURROUNDING LAND USES

*Figure 1. Project site and surrounding properties (Google Earth, Februray 11, 2022)*



The project is located along the western boundary of Sellers Avenue, which is also the City limit line at the project location. The project site frontage along Sellers Avenue runs 728 feet. From there, the property continues west where it intercepts the BNSF (Burlington Northern Santa Fe) railroad tracks which run in a northwest-southeast direction. The site currently exists as a ruderal field that undergoes discing for maintenance. It also includes a couple of abandoned agricultural buildings that sit about 400 feet west of Sellers Avenue and near the site's northern property line. Rural residential properties lie to the north, south, and east. Those located in the City are designated as Residential Very Low (RV) in the Oakley General Plan. An existing single family residential development is located on the other side of the railroad tracks. That development is designated as Residential Low Medium (RLM) in the Oakley General Plan. A few other parcels further south of the tracks have an approved subdivision project and two existing rural residential uses. This project site is designated Residential Low, the same as the proposed project site. Figure 1 shows the project site and surrounding properties.

### PRELIMINARY GENERAL PLAN AMENDMENT

The applicant for this project also filed a Preliminary General Plan Amendment (PGPA) application (PA 05-21) with the Oakley Planning Division in 2021. After receiving feedback on another similar PGPA (also filed by the applicant), the applicant decided to not proceed with a PGPA Work Session for this project, and instead later file a vesting tentative map and associated entitlements with a density compliant with the existing land use designation of Residential Low (RL).

## Project Description

### REZONE (RZ 01-22)

The project application includes a request for approval of a rezone consisting of an amendment from an existing P-1 District approved for the now expired tentative map and development plan to a new P-1 District tied to the proposed tentative map and other proposed. This rezone would approve the project's P-1 District in conjunction with the Vesting Tentative Map and Development Plan, which will establish the lot layout and sizes, minimum setbacks, street network, and ingress/egress for the project area.

The conventional district that is compatible with the project's land use designation would be the R-10 District, a single-family residential district with a minimum lot size of 10,000 square feet. The proposed P-1 District would allow for flexibility in the development standards related to minimum lot sizes and required yard setbacks. A P-1 District has no impact on the allowable density of the underlying General Plan Land Use Designation. Table 1 provides a comparison of the project's P-1 District and the conventional R-10 District relative development standards.

*Table 1. Comparison of Project's P-1 District and R-10 District Development Standards*

| | Min. Lot Size (sf.) | Front Yard Setback (ft.) | Side Yard Setback (ft.) | Corner Side Yard Setback (ft.) | Rear Yard Setback (ft.) |
|---|---|---|---|---|---|
| **Project's P-1 District** | Per the VTM (5,400 smallest lot) | 18 (garage)<br>12 (living) | 5 (no aggregate) | Not specified (Min. 10' plotted on Development Plan) | 14 |
| **R-10 District** | 10,000 | 20 (all) | 5 (20 aggregate) | 15 | 15 |

### VESTING TENTATIVE MAP (TM 01-22)

The proposed project would result in the subdivision of approximately 20.42 acres into a new, 77-unit single-family residential neighborhood, including public streets, open space with a neighborhood park (Parcel B) and stormwater retention basin (Parcel F). The project will also be dedicating approximately 2.35 acres of land

along Sellers Avenue and the future Laurel Road extension right of way along the project's northern boundary. Approximately 2.76 acres will be required for the stormwater detention basin and open space/park area. As proposed, the gross density (includes gross acreage before right of way dedication, parks, landscaping, etc.) would be approximately 3.77 dwelling units per gross acre (du/ga) with residential lot sizes ranging between 5,400 (32 lots) and 10,239 (Lot 8) square feet (sf), and an average residential lot size of approximately 5,970 sf.

Access to the neighborhood streets would be via Sellers Avenue between Lots 4 and 5. An emergency vehicle access (EVA) to Sellers Avenue proposed near the southern boundary of the site south of Lot 1. This EVA is proposed to be improved with turf block and use decorative bollards to still allow non-vehicular access to pedestrians and bicyclists. Internal roads are proposed as a grid pattern with a cul-de-sac terminating in the northwestern edge of neighborhood near the retention basin and open space/park. The east-west road along the southern boundary could potentially be designed into the property to the south at a future date. The applicant has proposed a homeowner's association to maintain the detention basin, park area, and all common areas of landscaping.

Dedication and improvements to Sellers Avenue will result in a 47-foot pavement width, including approximately 17 feet of the existing pavement on the east side of the centerline, and 32 feet of landscaping and a sidewalk on the project side. The applicant will also be dedicating 57 feet along the northern property line for the future improvements for the Laurel Road extension right of way, which will be a City-sponsored project crossing Laurel Road over the railroad tracks and connecting it to Sellers Avenue. The project will not be installing any of the Laurel Road improvements at this time, except for a sound wall on the private properties.

## FINAL DEVELOPMENT PLAN (FDP 01-22)

A Final Development Plan ("FDP") is a component of a P-1 District. The applicant is choosing to combine the FDP application with the Rezone application, which is allowed per the "Planned Unit Development (P-1)" section of the Oakley Municipal Code (Section 9.1.1002). Typically, the FDP includes the information provided on the Vesting Tentative Map and its related plans, as well as other information such as details on housing or elevations and heights of non-residential buildings. When FDPs are processed after a P-1 District is formed, the P-1 District will usually include a Preliminary Development Plan; however, an applicant may submit an FDP with a P-1 District rezone application so that it may be considered in conjunction with the rest of the project entitlements, such as what has occurred with this application. The proposed FDP includes a Development Plan that shows plotting of the different floor plans. The FDP will also establish the general neighborhood layout design, number and size of lots, types of residential structures, and other project-specific details. Any requested change to the approved FDP would be reviewed by the Planning Commission/City

Council where that body would determine whether the change is substantial enough to warrant a public hearing in order to further review the request. For this project, each of the three proposed plans are plotted at least 25 times, with Plans 2 and 3 each plotted 26 times.

## DESIGN REVIEW (DR 01-22)

As part of the Design Review application, the applicant is proposing house floor plans, architecture, color and material schemes, and landscape plans, including for the overall site, typical front yards, and the proposed open space/park area. The Design Review also includes details for proposed plants, including trees, proposed along Sellers Avenue, project streets, and in the park area. Illustrations for good neighbor fencing, the boundary/sound wall proposed and conditioned along various portions of the perimeter of the development, a design for a cluster mailbox, and enhanced paving are also included.

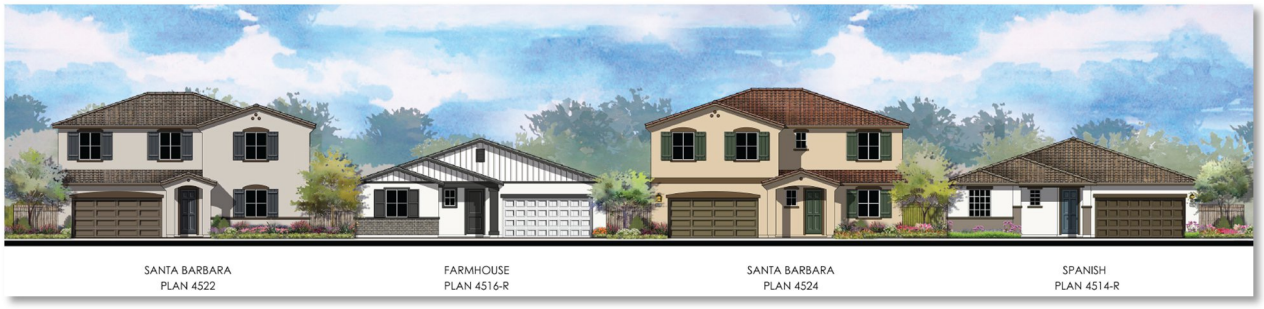
The project includes four different floor plans ranging from 2,054 sf. to 2,833 sf. of livable area consisting of two one-story and two two-story plans. All plans include a front-facing 2-car garage door, and a minimum of four bedrooms and 2.5 bathrooms. Table 2 provides a summary of the proposed floor plans.

*Table 2. Summary of Proposed Floor Plans*

| | Livable sf. | Livable sf. by Floor (1st/2nd) | Rooms | Bathrooms | Garage (sf./cars) |
|---|---|---|---|---|---|
| **Plan 1 (4514)** | 2,054 | 2,054 / N/A | 4 bedrooms | 2.5 | 419 / 2 |
| **Plan 2 (4516)** | 2,176 | 2,176 / N/A | 4 bedrooms | 2.5 | 421 / 2 |
| **Plan 3 (4522)** | 2,493 | 1,135 / 1,358 | 4 bedrooms<br>1 loft | 3 | 420 / 2 |
| **Plan 4 (4524)** | 2,833 | 1,166 / 1,667 | 5 bedrooms<br>1 loft/game room | 3 | 661 / 3 |

Three architectural styles are used for the three floor plans. They are referred to as Spanish (Elevation “A”), Santa Barbara (Elevation “B”), and Farmhouse (Elevation “C”). Each of the three architectural styles has three color and material themes tied specifically to that style. Figure 2 (following page) shows the conceptual streetscape per the Applicant’s Plans.

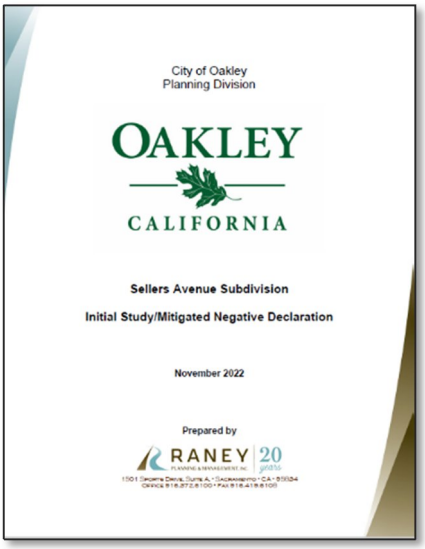
*Figure 2. Conceptual Streetscape per Applicant's Plans*




The Overall Landscape Plan shows approximately 170 new trees made up of 11 species, including front yard trees located near the private street lines. There is also an average of one ornamental tree located in each private front yard near the house. Twenty-one 24" box trees are proposed along Sellers Avenue. Sound walls are labeled to be installed along Sellers Avenue, the railroad tracks, and the future improvement of Laurel Road. A condition of approval has been proposed that would require the height of the walls along Sellers Avenue and the railroad tracks (6- and 12-feet high, respectively) with the added requirement of an acoustical analysis to determine the required height of the wall along the future Laurel Road extension right of way that is consistent with the thresholds of the General Plan.

## Environmental Review

### CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE




An Initial Study ("IS") and Mitigated Negative Declaration ("MND") have been prepared for this project pursuant to the California Environmental Quality Act ("CEQA"). Raney Planning and Management conducted the CEQA analysis survey on behalf of the City of Oakley. The Notice of Intent ("NOI") to Adopt an MND and IS was circulated for public review and comment from November 3, 2022 to December 5, 2022. It was filed with the County Clerk and Governor's Office of Planning and Research ("OPR"), distributed to over 60 public agencies and parties requesting such notice, and posted in the same manner as a Notice of Public hearing, which is at locations throughout the City and at the project site. The NOI provided a summary of the project as well as methods to access the IS/MND for review and comment.

Two comment letters were received in response to the NOI posting; one from the Department of Toxic Substances Control and one from the Central Valley Water Quality Control Board. The City's CEQA consultants prepared a Response to Comments, which has been included as Exhibit "A" to the IS/MND attached to this Staff Report. As stated in the document, based on the responses to comment, recirculation of the IS/MND was not warranted.

Analysis in the IS found seven (7) of the 21 impact categories require mitigation to reduce potential impacts to a less than significant level. All other 14 impact categories were found to have either no impacts or a less than significant impacts based on CEQA thresholds of significance. A summary of the mitigation measures can be found in the Mitigation Monitoring Program, included as Exhibit "A" to the Proposed Resolution attached to this Staff Report.

On April 4, 2023, the Planning Commission adopted Resolution No. 7-23 which included recommending the City Council adopt the Project's MND along with the proposed entitlements, as conditioned. Adoption of the MND is included in the proposed resolution for approval of the Vesting Tentative Map, Final Development Plan, and Design Review. The NOI and IS/MND are included as attachments to this Staff Report.

### HABITAT CONSERVATION PLAN/NATURAL COMMUNITY CONSERVATION PLAN

This project is subject to the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan ("HCP/NCCP" or "HCP Plan"). Projects that are subject to the HCP Plan are required to submit a Planning Survey Report ("PSR") as part of the project application. The contents of the PSR help guide the project through compliance with both the California and Federal Endangered Species Act by assuming presence of certain plant and animal species and requiring additional surveys to be done prior to any ground disturbance. In addition, whether species are found or not, the project must pay development impact fees for each acre, or fraction thereof, of the project area. Those development impact fees are used to help create, install, and maintain habitat outside of the Urban Limit Line, as well as administer the HCP Plan. The project would contribute $394,191.55 to the HCP/NCCP program under the impact fees current as of the date of this staff report.

## Analysis

### REZONE

When approving an application for a rezone to P-1 District, the City Council shall be satisfied that the following are true (summarized from OMC section 9.1.1002):

- The applicant intends to start construction within two years from the effective date of the zoning change;

- The development is consistent with the General Plan;
- If residential, it has sustained desirability and stability, and is in harmony with the character of surrounding neighborhoods; and
- The development of a harmonious, integrated plan justifies exceptions from the normal application of the OMC.

The Applicant has stated they plan to pursue development of the site if market conditions support it. The density and type of development is consistent with the General Plan, and similar to newer single family residential neighborhoods that must address on-site stormwater detention and that provide for on-site park facilities. The internal road network will only serve the project site for the time being; however, it will allow for the potential connection to the properties to the south. The type of development associated with this density and lot size is expected to be desirable in that it includes a variety of home sizes, and the development includes an open space area and neighborhood pocket park. It falls somewhere in the middle of the density ranges of nearby residential neighborhoods. The density is lower than the existing neighborhood across the railroad tracks to the southwest, and it is higher than what is designated to the north and south, and to the east across Sellers Avenue in unincorporated Contra Costa County. Although it is both of a higher and lowers density to adjacent properties, it is within one density range of all surrounding properties within the City of Oakley. Due to the significant requirement for dedication along Sellers Avenue and the future right of way for the Laurel Road extension (approximately 2.35 acres), and the approximately 2.76 acres used by the stormwater detention treatment area and pocket park, the P-1 District is justified to allow for project-specific development regulations in order to design a feasible project within the allowable range of the General Plan land use designation of RL.

The Applicant's Plans contain the information that would be required for a Final Development Plan, including the information on the Vesting Tentative Map, the preliminary site plan, landscaping plans, and house floor plans and architectural designs.

Staff recommends the City Council approve the proposed Rezone application.

## VESTING TENTATIVE MAP

The Vesting Tentative Map ("VTM") has been reviewed for compliance with all applicable codes including the Subdivision Map Act, General Plan, and the Zoning Ordinance. The VTM's gross density (approximately 3.77 du/ga) falls within the gross density range of the Residential Low (RL) General Plan Land Use Designation of 2.3-3.8 du/ga. The VTM is tied to a P-1 District, which has proposed project-specific development regulations, such as required yard setbacks and minimum lot sizes.

The site is physically suitable for the project in that it is accessible, not physically constrained other than the reduction in net developable acres due to right of way dedication and onsite stormwater retention basin, is similar to surrounding residentially developed projects, and it is also able to accommodate the proposed density of development in a manner consistent with the underlying land use designation. The subdivision is not expected to result in any serious public health problems. Public improvements are proposed and conditioned to occur as a result of the subdivision, which is a benefit to the public and surrounding residents and property owners of the vicinity. One such improvement will be the dedication and improvement of Sellers Avenue along the project frontage. The project will also dedicate land for the future Laurel Road extension, which is an essential element to the City's overall circulation patterns.

Staff recommends the City Council approve the proposed Vesting Tentative Map application, as conditioned.

## FINAL DEVELOPMENT PLAN

The Final Development Plan ("FDP") (sheet 2 of Applicant's Plans) shows the plotting of the homes and P-1 District development regulations. Plans 1, 2, and 3 are each plotted 19 times. Plan 4 is plotted 20 times. Plans 1 and 2 are the single-story homes and combine to make up 38 of the 77 lots (49.4%) and eight (8) of the 15 corner lots (53%) in the neighborhood. Plotting at least 25% of the total homes and at least 50% of the corner lots as single-story homes both implement separate Oakley Residential Design Guidelines.

The FDP proposes minimum setbacks (I.e., "required yards") of 12 feet for the front (living area), 18 feet for the garage, five (5) feet for the side, and 14 feet for the rear. The "Minimum Setbacks" table on the FDP does not include the minimum corner side yard setback; however, the actually plotting of the homes shows it is always at minimum 10 feet and that minimum will be required on the eventual plot plans submitted for building permits. The setbacks to garages vary between 18 feet and 22 feet to the front property line. Several of the homes on irregular lots show even greater setbacks to the garage. Since the sidewalk is located about five (5) feet away from the front property line, the available driveway length for each home will be the front setback to the garage, plus an additional five (5) feet.

This Final Development Plan ("FDP") makes up the plans that represent the underlying P-1 District. It will set forth the Development (Plotting) Plan, lot layout and sizes, and street network. It will also tie into the elements of the other entitlements, such as the Vesting Tentative Map and Design Review and make those details a part of the overall FDP. Future proposed amendments to the FDP are subject to the discretion of the Planning Commission/City Council as to whether they are substantial enough to require a public hearing or may be approved at a Staff level.

Staff recommends the City Council approve the proposed Final Development Plan application, as conditioned.

## DESIGN REVIEW

Analysis for Design Review refers to the Standards for Review as laid out in OMC section 9.1.1604(f), which focuses on site planning, architecture, landscaping and site elements, and streetscapes. With these standards in mind, the proposed plans were analyzed for consistency with the adopted City of Oakley Residential Guidelines ("Guidelines").

### Neighborhood Layout and Design

The project has been designed so that all streets are enclosed to houses that will be in this subdivision, except for the possibility of future development to the south where the entire entry street abuts the property line. Due to the existing railroad tracks and future Laurel Road extension, there are no planned connectors to the west or north. Sellers Avenue abuts the east side where two entries are proposed (one that may be shared in the future by the property to the south). None of the houses will front onto Sellers Avenue or the future Laurel Road extension. Sounds walls are proposed along the railroad tracks and Sellers Avenue, and the project has been conditioned to also construct a wall along the future Laurel Road extension right of way subject to an acoustical study.

### Residential Siting and Lot Design

Residential siting and lot design is important because it can create setback variations and add interest to the streetscape in a neighborhood. The applicant has established a minimum setback of 12 feet to the home and 18 feet to garages from the front property line which, as proposed with the existence of the parkway strip, is the back of sidewalk. Side setbacks are set at a minimum 5 feet and rear setbacks at 14 feet. The P-1 District does not specify a corner side yard setback; however, based on the plotting plan, every corner lot has a home setback at least 10 feet from the corner side yard property line. In the same sense, all lots have an aggregate side yard setback of at least 15 feet. Also, the garages are aligned with the wider of the two side yards allowing for better side yard access adjacent to the garage, which is consistent with Oakley's Municipal Code related to driveway extensions. Having the wider side yard adjacent to the garage is consistent with Oakley Residential Design Guidelines.

For front yard setback variation, each home's footprint varies so no home will have a 12-foot setback to the living area combined with an 18-foot setback to the garage. For example, When the garage is at 18 feet for Plan 2, the living area will be at 14. For Plan 1, with the living area at 12 feet, the garage will be at 22 feet. For Plan 3, with the garage at 18 feet, the living area is at 16.5 feet. None of the proposed homes will result in a setback of the minimum for both the garage and main home. Given the short

distance between the garage and back of sidewalk created with an 18-foot setback to garages and a parkway strip, Staff is recommending the developer replace the parkway strip with a monolithic curb and sidewalk (more analysis on this in the Landscaping and Walls section below) so allow for an additional 5-feet of driveway between the garages and sidewalk.

Building mass is an element of lot siting and design and can affect the aesthetics of the overall neighborhood. For the proposed project, changes in roof materials and design among the same floor plan assist in giving the overall neighborhood more visual variety. Some changes are to the main roof line, while others focus on the projecting elements such as porches or a bedroom. For example, the Spanish style uses a concrete S-tile material designed and is designed with hip roofs at the porches and projecting bedrooms and other elements, while the Santa Barbara style includes the same material in an assorted color, and rather than hip roofs at the porch and other projecting elements, it shows an open gable. The Farmhouse uses a concrete flat tile material and includes gables with decorative board and batten.

Two common Oakley Design Guidelines look for new single family residential developments to achieve an overall minimum of 20% single-story homes and that at least 50% of all corner-lots be single-story homes. In the case of the proposed project, two of the four plans are single-story, and they are plotted on a total of 49% of the lots, and eight (8) of the 15 corner lots. Another guideline is to maintain at least a 15-foot setback between adjacent second story elements. There are 10 situations where two-story homes are directly side by side. Of those 10 situations, five of them have homes ten feet apart. This guideline is not 100% implemented but given the attempts to minimize adjacent two-story homes and keep the wider side yards adjacent to the garage, the applicant has attempted to implement the guideline into the design. A condition of approval has been proposed that will require to the applicant to attempt to replot the homes to provide the 15-foot spacing between adjacent two stories elements, but only if they can maintain the wider side yard adjacent to the garage and not impact other lots in the subdivision. Any inability to implement this guideline will need to be submitted to the City by the applicant and be subject to review and approval by both the Community Development Director and City Engineer before being accepted.

Architectural Character

The architectural character and design of the proposed homes meets several of the design guidelines. There is variation in materials between architectural styles, such as roofing, veneer, and siding, and often more than one secondary exterior material is proposed; however, the use of 360-degree architecture is inconsistent. It is shown for things such as window trim and dividers, but not used on all the homes when it comes to the elements such as window shutters and gable treatments. The three color schemes for each architectural style complement each other while allowing for uniqueness to any given home with the eyesight of another. There are two garage door

designs for all of the homes with the Spanish and Santa Barbara having the same 16-panel design and the Farmhouse with a 32-panel design. There are no options for garage door windows.

Areas for small improvements and better implementation of the design guidelines are summarized below and have been included as conditions of approval that will be subject to the review and approval of the Community Development Director:

- Exterior lighting specific to each architectural type;
- Increased use of false shutters where feasible on more of the side and rear elevations of those homes to meet the City's 360-degree architectural design guidelines;
- Second-story gables to receive same treatment as front-facing gables on applicable plans; and
- Including a third garage door to be used on either the Spanish or Santa Barbara style and including garage door window options for each style.

## Landscaping and Walls

The landscape plans provide for a mix of tree species and sizes to be planted along the Sellers Avenue frontage and throughout the subdivision. The Planning Commission recommended the parkway strip (landscaping between the street and sidewalk) be replaced with a monolithic curb/gutter/sidewalk design, which has been proposed in the current version of the project. The monolithic design results in more off-street parking space on the lot, less difficulty finding space for street trees, and less likelihood of poorly maintained landscaped areas, especially along corner lots.

The proposed sound walls for this subdivision did not originally meet the design criteria for new subdivisions. The Planning Commission adopted a condition that recommended the wall columns to include stone veneer. In addition, after the Planning Commission public hearing, Staff received additional comments from the public for a CMU-style wall at least along Sellers Avenue and the future Laurel Road extension. As a result of the Planning Commission's condition of approval and public's input, the applicant has proposed a split-face CMU wall with stone veneer columns (see Figure 3).

*Figure 3. Example of Proposed CMU Sound Wall*



Staff recommends the City Council approve the proposed Design Review application, as conditioned.

## Findings

Draft findings can be found in the proposed resolution.

## Fiscal Impact

The approval of these entitlements will not impact the General Fund. This is a developer funded account. All Staff time and City of Oakley generated materials are charged to the developer account funded by the developer.

## Staff Recommendation

Staff recommends the City Council approve the project titled, “Sellers Avenue Subdivision 9614 (RZ 01-22, TM 01-22, FDP 01-22, DR 01-22),” as conditioned through the following actions:

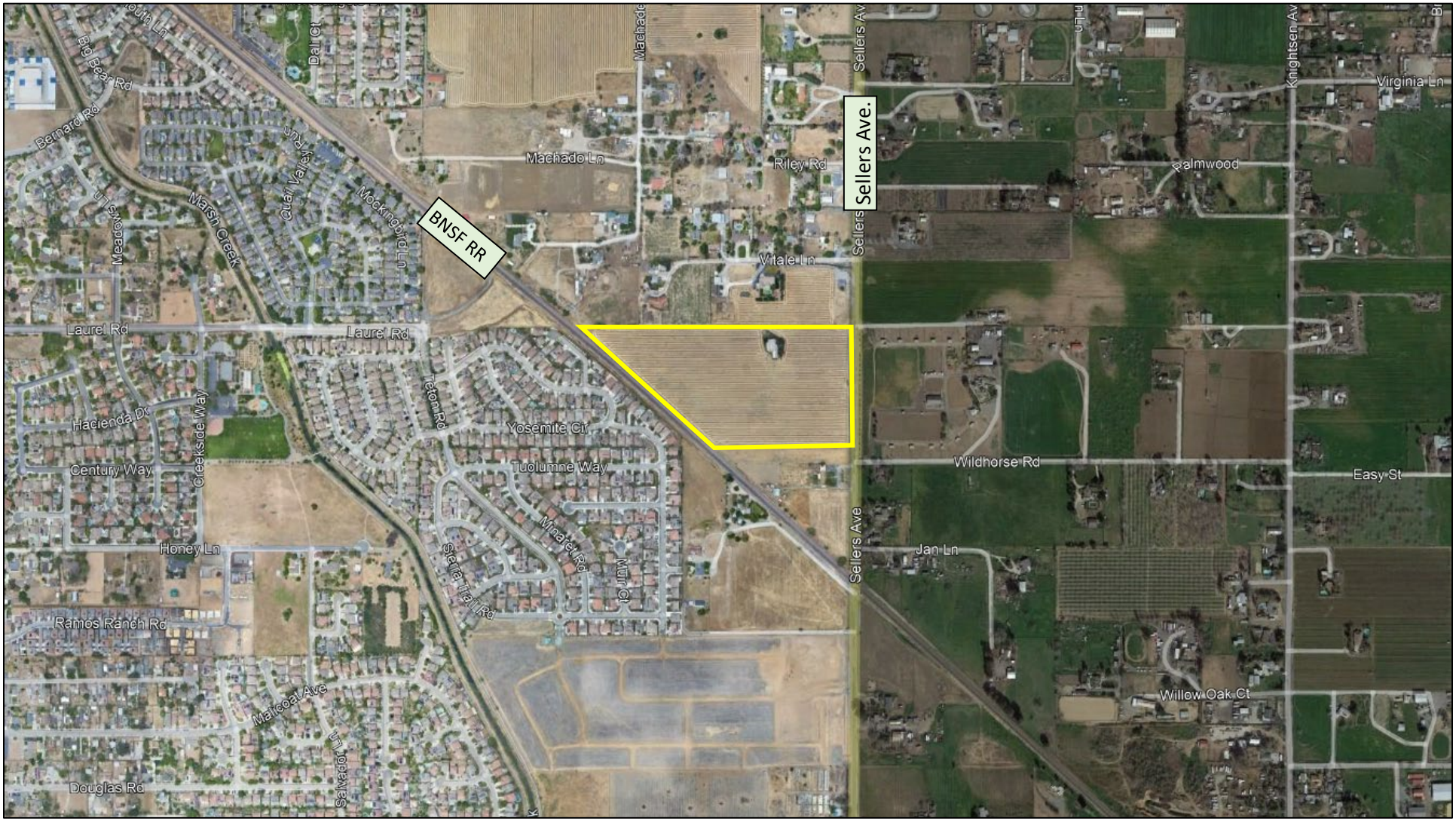
- Introduce the proposed ordinance amending an existing P-1 (Planned Unit Development) District;
- Adopt the proposed resolution adopting the project’s CEQA Mitigated Negative Declaration and approving the Vesting Tentative Map, Final Development Plan, and Design Review applications.

## Attachments

1. Vicinity Map
2. Notice of Public Hearing
3. Applicant’s Plans
4. Sellers Avenue Subdivision - Notice of Intent to Adopt a Mitigated Negative Declaration
5. Sellers Avenue Subdivision - Initial Study/Mitigated Negative Declaration
   a. Exhibit “A”: Sellers Avenue Subdivision – Responses to Comments on IS/MND
6. Planning Commission Staff Report from April 4, 2023
7. Planning Commission Meeting Minutes from April 4, 2023
8. Planning Commission Resolution 7-23
9. Proposed Ordinance
10. Proposed Resolution with Exhibit “A” Mitigation Monitoring Program

# Vicinity Map

## Sellers Avenue Subdivision 9164
## APN: 033-150-013



OAKLEY
CALIFORNIA

# NOTICE OF PUBLIC HEARING

Notice is hereby given that on **July 11, 2023** at 6:30 p.m., or as soon thereafter as the matter may be heard, the City Council of the City of Oakley will hold a Public Hearing at the Council Chambers located at 3231 Main Street, Oakley, CA 94561 for the purposes of considering application as described below:

**Project Name:** Sellers Avenue Subdivision (DeJesus) Rezone (RZ 01-22), Vesting Tentative Map (TM 01-22), Final Development Plan (FDP 01-22), and Design Review (DR 01-22).

**Project Location:** 5911 Sellers Avenue, Oakley, CA 94561. APNs 033-150-013.

**Applicant:** MLC Holdings, 2603 Camino Ramon, Ste. 140, San Ramon, CA 94583; Attn: Paul Manyisha; paul.manyisha@mlcholdings.net.

**Request:** Application by MLC Holdings requesting approval of: 1) a Rezone (RZ 01-22) to amend an existing P-1 District; 2) a Vesting Tentative Map (TM 01-22) subdividing approximately 20.42 acres into 77 single residential lots, stormwater detention treatment area, and neighborhood park; 3) a Final Development Plan (FDP 01-22) in conjunction with the project's P-1 District; and 4) Design Review (DR 01-22) for floor plans and architecture, and conceptual landscape plans. The proposed homes consist of two single-story and two two-story house plans each with three elevations. Floor plans range from 2,054 to 2,833 square feet of livable area. The project site is located at 5911 Sellers Avenue and is zoned P-1 (Planned Unit Development) District. (APNs: 033-150-013).

**How to Review:** The Staff Report and its attachments will be available for public review, on or before **July 5, 2023** at City Hall, 3231 Main Street, Oakley, CA 94561 or online at www.ci.oakley.ca.us/agendas-minutes-videos-archive/ by navigating to the **July 11, 2023 City Council** agenda and clicking the project title link. (Note: City Hall is closed on the 1st and 3rd Fridays of each month). Interested persons are invited to submit written comments prior to and may testify at the public hearing. Written comments may be submitted to Ken Strelo, Planning Manager at the City of Oakley, 3231 Main Street, Oakley, CA 94561 or by email to strelo@ci.oakley.ca.us.

**NOTICE IS ALSO GIVEN** pursuant to Government Code Section 65009(b) that, if this matter is subsequently challenged in Court by you or others, you may be limited to raising only those issues you or someone else has raised at a Public Hearing described in this notice or in written correspondence delivered to the City of Oakley City Clerk at, or prior to, the Public Hearing.



## SHEET INDEX


1. COVER SHEET - INDEX SHEET
2. P1.0 - FINAL DEVELOPMENT PLAN

*CIVIL SHEETS (VESTING TENTATIVE MAP)*

3. C1.0 VESTING TENTATIVE MAP
4. C1.1 STREET SECTIONS & DETAILS
5. C2.0 EXISTING CONDITIONS
6. C3.0 PRELIMINARY GRADING PLAN
7. C4.0 PRELIMINARY UTILITY PLAN
8. C5.0 PRELIMINARY STORMWATER MANAGEMENT PLAN

*LANDSCAPE SHEETS*

9. L-1 OVERALL LANDSCAPE PLAN
10. L-2 TYPICAL LANDSCAPE PLAN
11. L-3 PARK ENLARGEMENT
12. L-4 LANDSCAPE IMAGERY & DETAILS

*ARCHITECTURE SHEETS*

13. A-1 STREET SCENE
14. A-2 PLAN 4514 - FLOOR PLAN
15. A-3 PLAN 4514 "A" - SPANISH ELEVATIONS
16. A-4 PLAN 4514 "B" - SANTA BARBARA ELEVATIONS
17. A-5 PLAN 4514 "E" - FARMHOUSE ELEVATIONS
18. A-6 PLAN 4514 - ROOF PLAN
19. A-7 PLAN 4516 - FLOOR PLAN
20. A-8 PLAN 4516 "A" - SPANISH ELEVATIONS
21. A-9 PLAN 4516 "B" - SANTA BARBARA ELEVATIONS
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33. A-21 PLAN 4524 - ROOF PLAN
34. A-22 WRITTEN COLOR SCHEMES
35. A-23 COLOR BOARDS - SPANISH
36. A-24 COLOR BOARDS - SANTA BARBARA
37. A-25 COLOR BOARDS - FARMHOUSE


## DEVELOPER


MLC HOLDINGS, INC
2603 CAMINO RAMON, SUITE 140
SAN RAMON, CA 94583
(925) 543-4012
CONTACT: PAUL MANYISHA


## LANDSCAPE ARCHITECT


VANDERTOOLEN ASSOCIATES
855 BORDEAUX WAY, SUITE 240
NAPA, CA 94558
(707) 224-2299
CONTACT: KATY MENDENHALL


## CIVIL ENGINEER


CARLSON, BARBEE & GIBSON
2633 CAMINO RAMON, SUITE 350
SAN RAMON, CA 94583
(925) 866-0322
CONTACT: COLT ALVERNAZ


MAY 2023

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

MLC Holdings, Inc.

# VESTING TENTATIVE MAP
# SELLERS AVENUE

## SUBDIVISION 9614
## OAKLEY, CALIFORNIA

City of Oakley
Planning Division

JUN 9, 2023

RECEIVED

VTA


cbg
CIVIL ENGINEERS ▪ SURVEYORS ▪ PLANNERS
SAN RAMON ▪ (925) 866-0322
SACRAMENTO ▪ (916) 375-1877
WWW.CBANDG.COM


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## MINIMUM SETBACKS

| | |
|---|---|
| FRONT | 12' |
| GARAGE | 18' |
| SIDE | 5' |
| REAR | 14' |

## UNIT MIX SUMMARY

| PLAN | UNIT COUNT | % MIX |
|---|---|---|
| PLAN 4514 | 19 | 24.67% |
| PLAN 4516 | 19 | 24.67% |
| PLAN 4522 | 19 | 24.67% |
| PLAN 4524 | 20 | 25.97% |
| TOTAL | 77 | 100% |

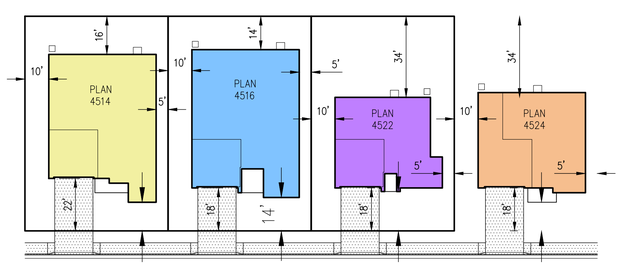
## COVERAGE SUMMARY

| PLAN | BUILDING FOOTPRINT* | TYP 60' X 90' LOT COVERAGE | TYP 60' X 100' LOT COVERAGE |
|---|---|---|---|
| PLAN 4514 | 2,054 SF± | 38.0% | 34.2% |
| PLAN 4516 | 2,176 SF± | 40.3% | 36.3% |
| PLAN 4522 | 1,358 SF± | 25.1% | 22.6% |
| PLAN 4524 | 1,667 SF± | 30.9% | 27.8% |

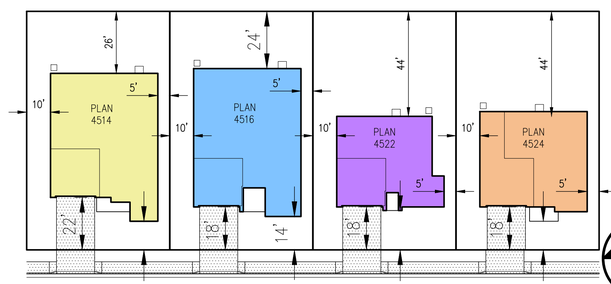
* DOES NOT INCLUDE PORCH AREA

## GENERAL NOTES

1. SUBDIVIDER: MLC HOLDINGS, INC.
   2603 CAMINO RAMON, SUITE 140
   SAN RAMON, CA 94583
   PHONE: (925) 543-4012
   CONTACT: CHARLES MCKEAG
2. CIVIL ENGINEER: CARLSON, BARBEE & GIBSON, INC.
   2633 CAMINO RAMON, SUITE 350
   SAN RAMON, CA 94583
   PHONE: (925) 866-0322
   CONTACT: COLT ALVERNAZ
3. ACREAGE: GROSS: 20.81 AC±
   NET: 18.08 AC±
4. LAND USE: EXISTING – VACANT LAND
   PROPOSED – SINGLE FAMILY RESIDENTIAL
5. ZONING: R-6 (RESIDENTIAL 6,000 SF MIN)
   PROPOSED – P-1 (PLANNED DEVELOPMENT) DISTRICT
6. SITE DENSITY: GROSS: 3.70 DU/AC
   NET: 4.26 DU/AC
7. MINIMUM LOT AREA: 5,400 SF±
8. ACCESSORY STRUCTURES: ACCESSORY STRUCTURES ARE SUBJECT TO THE REQUIREMENTS OF THE CITY OF OAKLEY MUNICIPAL CODE




TYPICAL 60' X 90' LOT SETBACKS




TYPICAL 60' X 100' LOT SETBACKS

# FINAL DEVELOPMENT PLAN

# SELLERS AVENUE

## SUBDIVISION 9614

CITY OF OAKLEY CONTRA COSTA COUNTY CALIFORNIA

0 60 120 180

DATE: MAY 2023

cbg CIVIL ENGINEERS ▪ SURVEYORS ▪ PLANNERS
SAN RAMON ▪ (925) 866-0322
ROSEVILLE ▪ (916) 788-4456
WWW.CBANDG.COM

SHEET NO. P1.0 OF 37 SHEETS

F:\3247-000\ACAD\TM\DP-1.DWG




## CONTACTS

1. OWNER/DEVELOPER: MLC HOLDINGS, INC.
   2603 CAMINO RAMON, SUITE 140
   SAN RAMON, CA 94583
   (925) 543-4012
   PAUL MANYISHA

2. ENGINEER: CARLSON, BARBEE & GIBSON, INC.
   2633 CAMINO RAMON, SUITE 350
   SAN RAMON, CALIFORNIA 94583
   (925) 866-0322
   COLT ALVERNAZ, RCE 75740

3. SOILS ENGINEER: ENGEO
   CROW CANYON PLACE, SUITE 250
   SAN RAMON, CA 94583
   (925) 866-9000
   ROBERT BOECHE

## GENERAL NOTES

1. ASSESSORS PARCEL NO. 033-150-013

2. SITE AREA: GROSS: 20.42± ACRES
   NET: 18.07± ACRES (SELLERS AVE & LAUREL ROAD DEDICATIONS)

3. LOTS: RESIDENTIAL: 77 (LOTS 1-77)
   PUBLIC STREETS: 3 (PARCEL A, C & D)
   OPEN SPACE: 1 (PARCEL B)
   EMERGENCY VEHICLE ACCESS (EVA): 1 (PARCEL E)
   RETENTION/WATER QUALITY: 1 (PARCEL F)

4. DWELLING UNITS: 77

5. SITE DENSITY: GROSS: 3.77 DU/AC
   NET: 4.26 DU/AC

6. EXISTING GENERAL PLAN: SINGLE FAMILY RESIDENTIAL – MEDIUM
   PROPOSED GENERAL PLAN: SINGLE FAMILY RESIDENTIAL – MEDIUM

7. EXISTING ZONING: P-1 (PLANNED DEVELOPMENT)
   PROPOSED ZONING: P-1 (PLANNED DEVELOPMENT)

8. EXISTING LAND USE: VACANT LAND
   PROPOSED LAND USE: SINGLE FAMILY RESIDENTIAL

9. BENCHMARK: BEING A BRASS DISK STAMPED CONTRA COSTA COUNTY BM #3095, IN CONCRETE NORTHWEST CORNER OF NEW BRIDGE OVER MARSH CREEK, AT ITS INTERSECTION WITH CYPRESS ROAD, 400 FT. EAST OF THE INTERSECTION OF CYPRESS ROAD AND STATE HIGHWAY 4, HAVING AN ELEVATION OF 22.993 FEET

10. BASIS OF BEARINGS: THE BASIS OF BEARINGS FOR THIS SURVEY IS BETWEEN FOUND NGS MONUMENTS, HAVING PID NO. AA3821 AND JS4835, EPOCH 2010, THE BEARING BEING N70°45'54"E (CALCULATED AND MEASURED)

11. FLOOD ZONE: ZONE X: 0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF LESS THAN ONE SQUARE MILE
    SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP, MAP NUMBER 06013C0360G
    DATE: MARCH 21, 2017

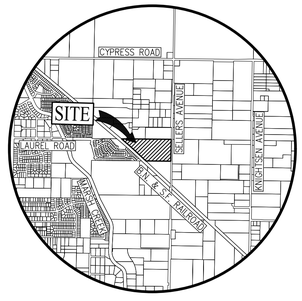
12. UTILITIES:
    WATER: DIABLO WATER DISTRICT
    SEWER: IRONHOUSE SANITARY DISTRICT
    STORM DRAIN: CITY OF OAKLEY
    GAS & ELECTRIC: PG&E
    TELEPHONE: AT&T

13. DIMENSIONS: ALL DIMENSIONS ARE PRELIMINARY AND SUBJECT TO FINAL MAP

14. GRADING: GRADING SHOWN IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL DESIGN. PAD GRADES SHOWN ON SITE DEVELOPMENT PERMIT PLANS MUST BE IN SUBSTANTIAL CONFORMANCE WITH THOSE DEPICTED ON THE APPROVED TENTATIVE MAP.

15. PHASING: PROJECT MAY BE CONSTRUCTED IN PHASES

16. FINAL MAP: THIS PROJECT MAY BE PHASED. MULTIPLE FINAL MAPS MAY BE FILED UPON APPROVAL OF THE VESTING TENTATIVE SUBDIVISION MAP.




VICINITY MAP
NOT TO SCALE

# VESTING TENTATIVE MAP
# SELLERS AVENUE
## SUBDIVISION 9614

CITY OF OAKLEY CONTRA COSTA COUNTY CALIFORNIA

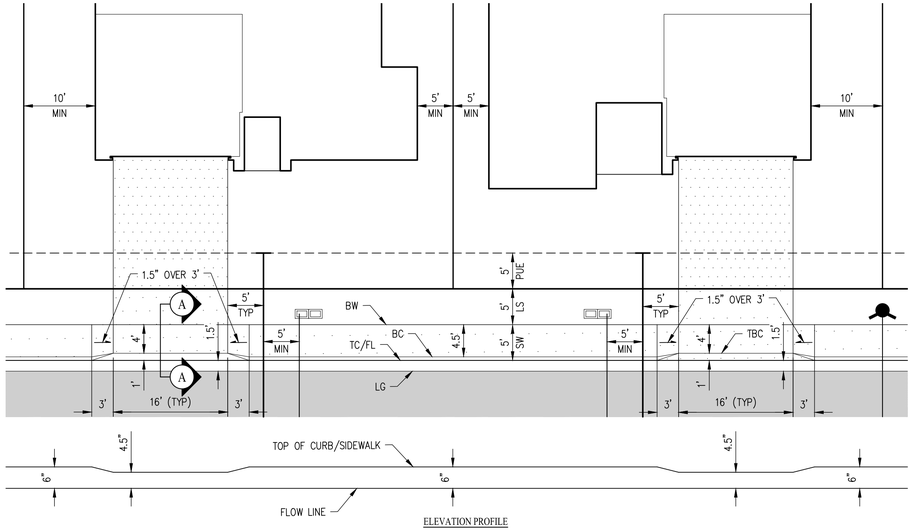
0 60 120 180

DATE: MAY 2023

cbg CIVIL ENGINEERS ▪ SURVEYORS ▪ PLANNERS
SAN RAMON ▪ (925) 866-0322
ROSEVILLE ▪ (916) 788-4456
WWW.CBANDG.COM

SHEET NO. C1.0 OF 37 SHEETS

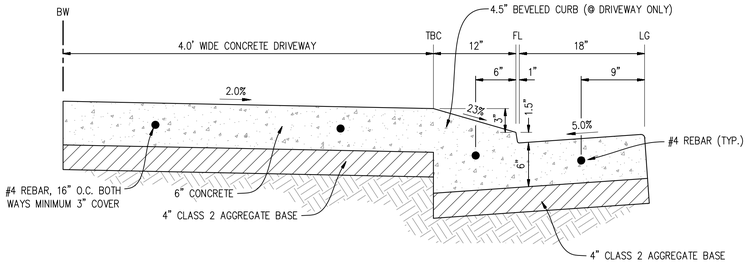
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ELEVATION PROFILE

## TYPICAL DRIVEWAY & UTILITY LOCATION DETAIL

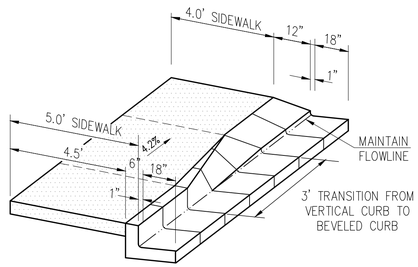
NOT TO SCALE




## SECTION A-A
## PROPOSED DRIVEWAY DETAIL

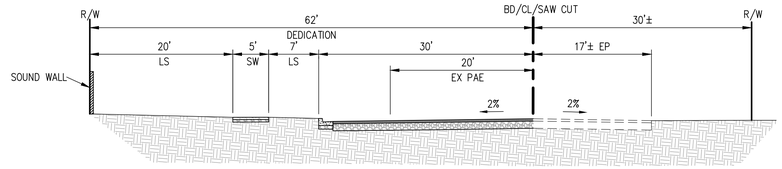
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*SEE CITY STD DETAIL C-06 FOR ADDITIONAL CONSTRUCTION NOTES AND SPECIFICATIONS



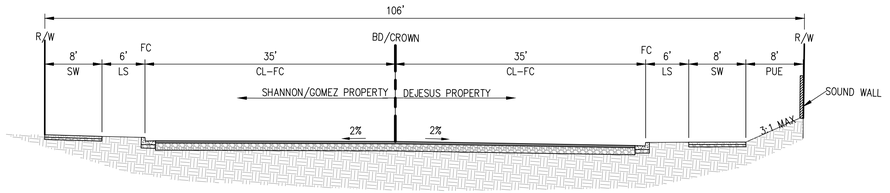

## TYPICAL TRANSITION FROM VERTICAL CURB TO BEVELED CURB

NOT TO SCALE



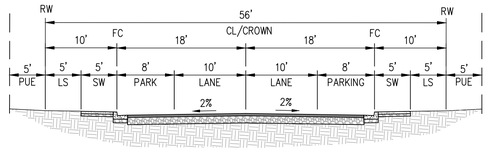

## SELLERS AVENUE SECTION

NOT TO SCALE



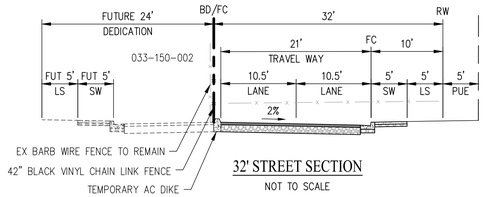

## FUTURE LAUREL ROAD SECTION

NOT TO SCALE




## 56' STREET SECTION

NOT TO SCALE




## 32' STREET SECTION

NOT TO SCALE

# STREET SECTIONS & DETAILS
# SELLERS AVENUE
## SUBDIVISION 9614

CITY OF OAKLEY CONTRA COSTA COUNTY CALIFORNIA

0 60 120 180

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DATE: MAY 2023

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MACHADO
033-160-021

SHANNON
033-160-039

GOMEZ
033-160-005

MATHIAS
020-010-017

DEFREMERY
033-150-002

SELLERS AVENUE

BNSF RAILROAD

N49°54'22"W
26.28'

N89°27'08"W 2646.35'

R=1503.20'
Δ=75.27°
L=516.80'

N47°02'05"W 490.72'

N89°27'08"W 844.12'

N01°02'10"E 726.00'

EXISTING OVERHEAD
ELECTRIC SERVICE
TO BE REMOVED

EX OH E

EXISTING BUILDING
STRUCTURES TO
BE REMOVED

EXISTING FENCE
TO BE REMOVED

EX 20' PAE

EXISTING GATE TO
BE REMOVED

EXISTING OVERHEAD
ELECTRIC TO BE
UNDERGROUND

VINEYARDS

POOL

GNV

## LEGEND

- EXISTING PROJECT BOUNDARY
- EXISTING EASEMENT
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- EXISTING MANHOLE
- EXISTING STREET LIGHT
- EXISTING FENCE
- EX SD — EXISTING STORM DRAIN
- EX SS — EXISTING SANITARY SEWER
- EX W — EXISTING WATER LINE
- EX GAS — EXISTING GAS
- EX OH — EXISTING OVERHEAD LINE
- EXISTING BUILDING TO BE DEMOLISHED
- EXISTING DIRT PATH TO BE DEMOLISHED
- EXISTING TREE TO BE REMOVED

# EXISTING CONDITIONS
# SELLERS AVENUE
## SUBDIVISION 9614

CITY OF OAKLEY CONTRA COSTA COUNTY CALIFORNIA

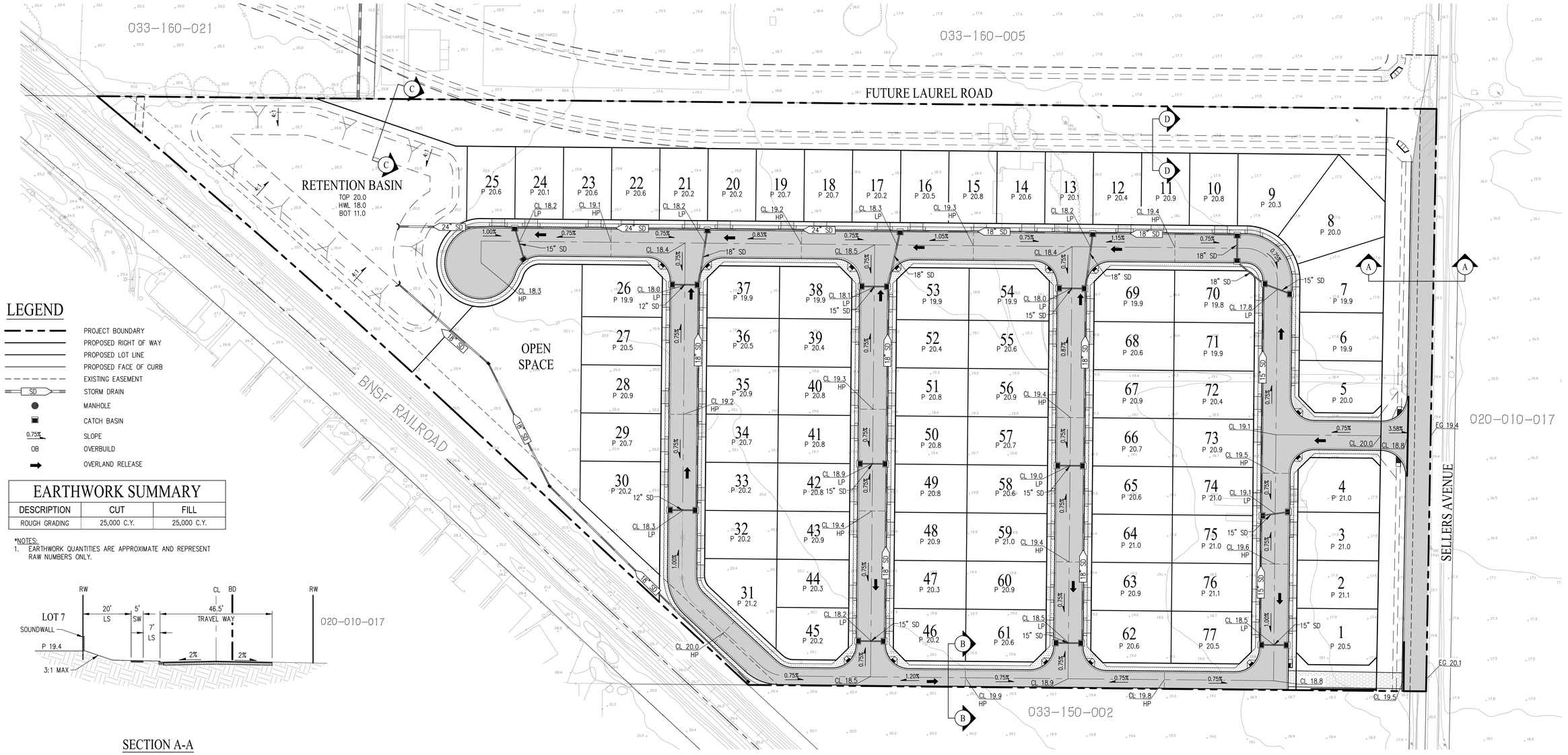
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DATE: MAY 2023

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C2.0
OF 37 SHEETS

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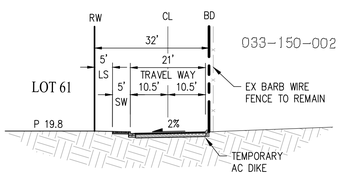

## EARTHWORK SUMMARY

| DESCRIPTION | CUT | FILL |
|---|---|---|
| ROUGH GRADING | 25,000 C.Y. | 25,000 C.Y. |

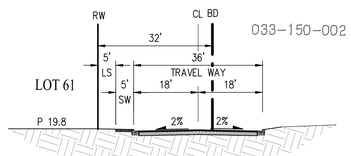
*NOTES:
1. EARTHWORK QUANTITIES ARE APPROXIMATE AND REPRESENT RAW NUMBERS ONLY.



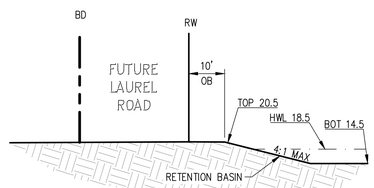

SECTION A-A
NOT TO SCALE



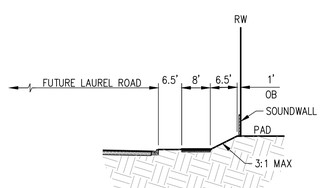

SECTION B-B
NOT TO SCALE




SECTION B-B (FUTURE)
NOT TO SCALE




SECTION C-C
NOT TO SCALE




SECTION D-D
NOT TO SCALE

# PRELIMINARY GRADING PLAN
# SELLERS AVENUE
## SUBDIVISION 9614

CITY OF OAKLEY CONTRA COSTA COUNTY CALIFORNIA

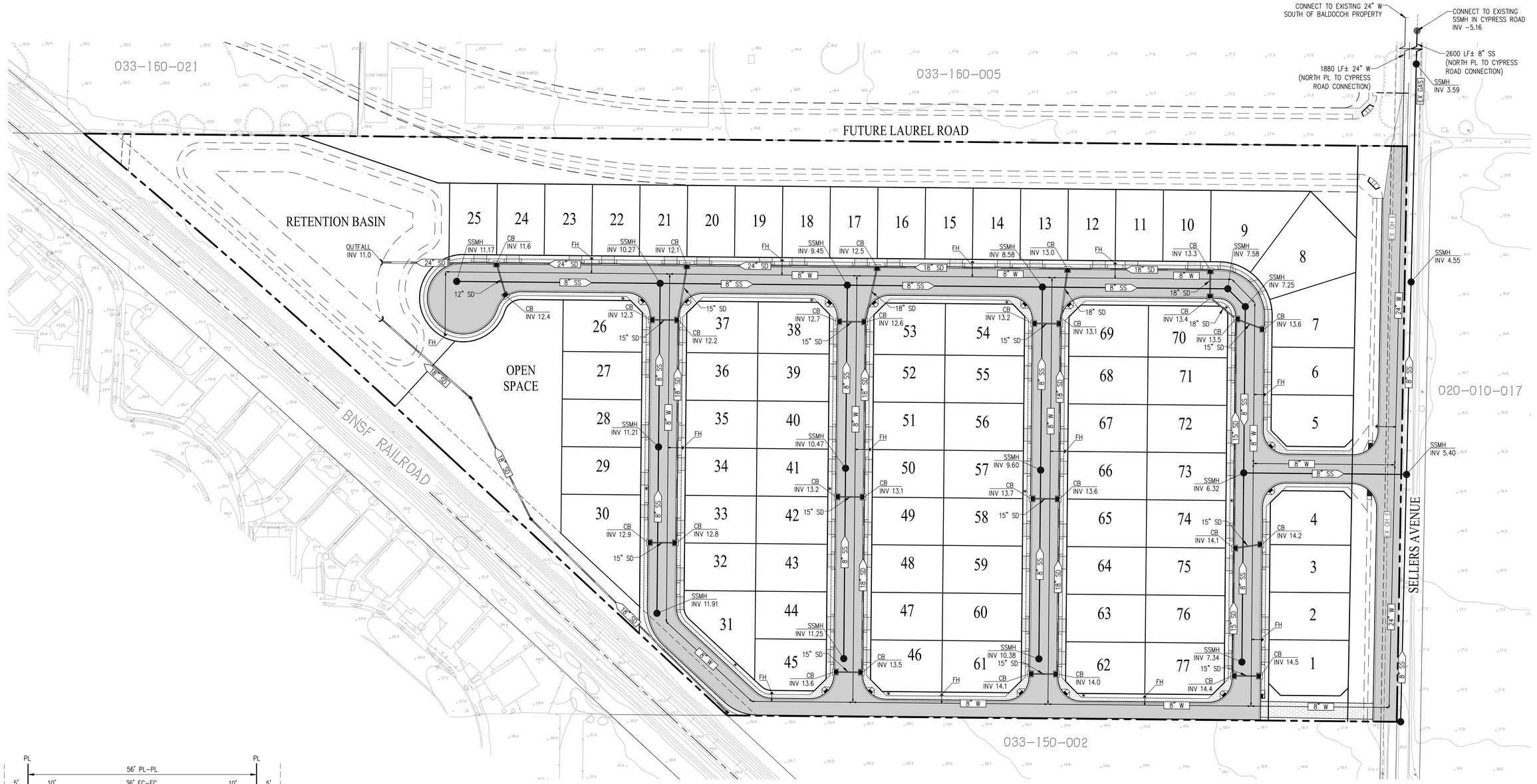
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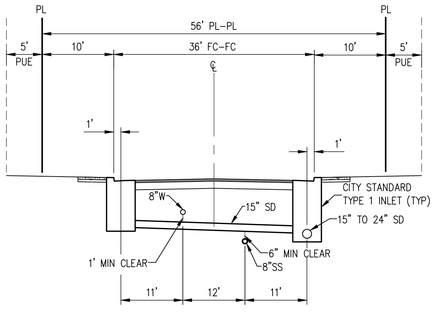
DATE: MAY 2023

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SHEET NO.
C3.0
OF 37 SHEETS

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TYPICAL UTILITY SECTION
NOT TO SCALE

## LEGEND

- PROJECT BOUNDARY
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED FACE OF CURB
- EXISTING EASEMENT
- SD — STORM DRAIN
- SS — SANITARY SEWER
- W — WATER LINE
- MANHOLE
- CATCH BASIN
- FIRE HYDRANT

# PRELIMINARY UTILITY PLAN
# SELLERS AVENUE
## SUBDIVISION 9614

CITY OF OAKLEY CONTRA COSTA COUNTY CALIFORNIA

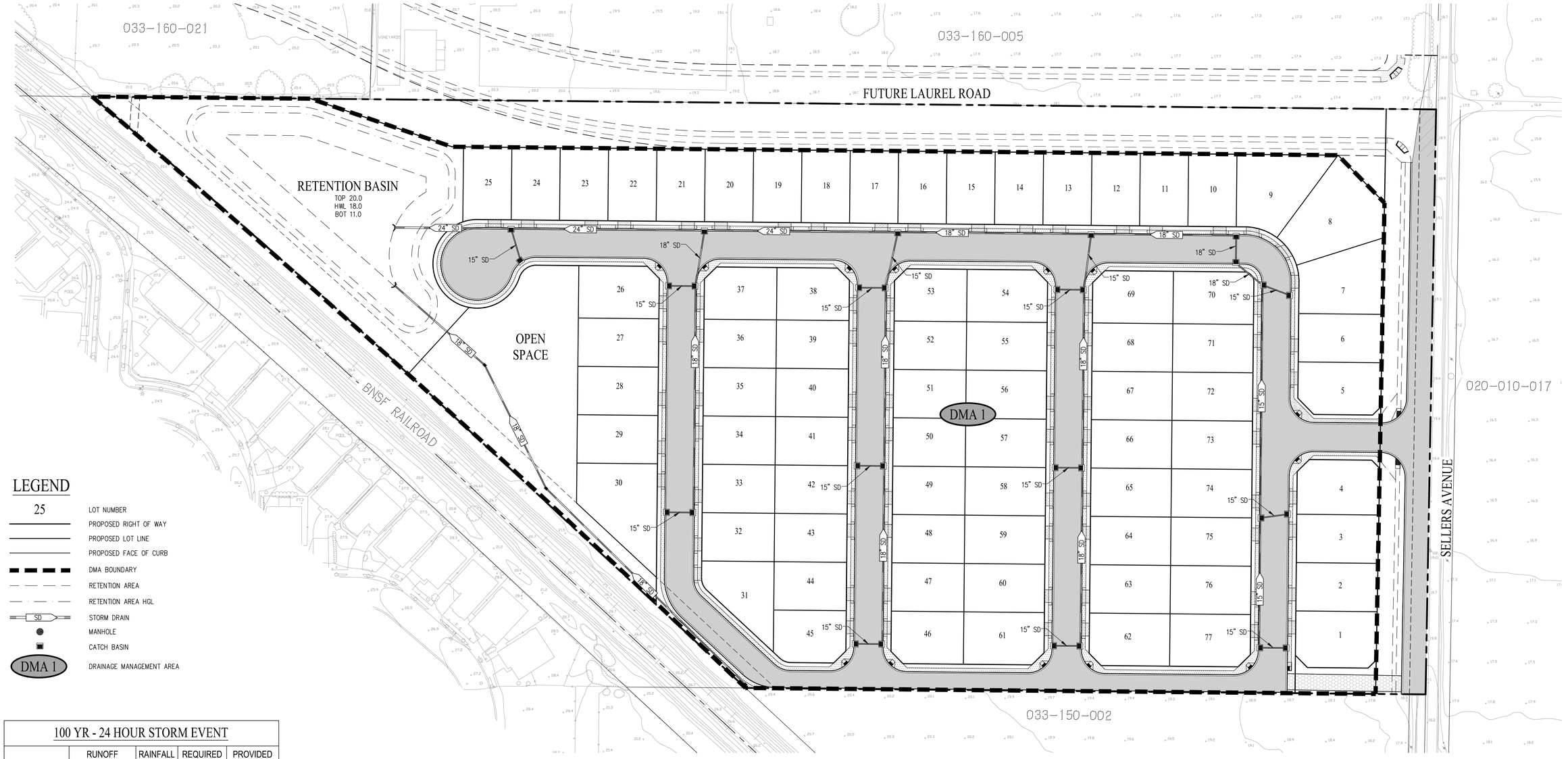
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SHEET NO. C4.0 OF 37 SHEETS

DATE: MAY 2023

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## LEGEND

| | |
|---|---|
| 25 | LOT NUMBER |
| | PROPOSED RIGHT OF WAY |
| | PROPOSED LOT LINE |
| | PROPOSED FACE OF CURB |
| | DMA BOUNDARY |
| | RETENTION AREA |
| | RETENTION AREA HGL |
| SD | STORM DRAIN |
| | MANHOLE |
| | CATCH BASIN |
| DMA 1 | DRAINAGE MANAGEMENT AREA |

### 100 YR - 24 HOUR STORM EVENT

| AREA (AC) | RUNOFF COEFFICIENT (C) | RAINFALL DEPTH (IN) | REQUIRED VOLUME (AC-FT) | PROVIDED VOLUME (AC-FT) |
|---|---|---|---|---|
| 19.21* | 0.6 | 4.03 | 3.85 | 4.97 |

*EXCLUDES LAUREL RIGHT OF WAY.

### C.3 CALCULATIONS

| DRAINAGE MANAGEMENT AREA (DMA) | IMPERVIOUS AREA | | | TOTAL PERVIOUS (SF) | TOTAL DRAINAGE AREA (SF) | REQUIRED TREATMENT VOLUME (CuFt) | PROVIDED TREATMENT VOLUME (CuFt) | TREATMENT TYPE |
|---|---|---|---|---|---|---|---|---|
| | PAVEMENT (SF) | ROOF (SF) | TOTAL (SF) | | | | | |
| DMA #1 | 181,462 | 189,645 | 371,107 | 416,345 | 787,452 | 47,112 | 47,112 | INFILTRATION BASIN |

NOTE: SIZED USING IMP CALCULATOR.

# PRELIMINARY STORMWATER MANAGEMENT PLAN

# SELLERS AVENUE

## SUBDIVISION 9614

CITY OF OAKLEY CONTRA COSTA COUNTY CALIFORNIA

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SHEET NO. C5.0 OF 37 SHEETS

DATE: MAY 2023

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## PROPOSED TREE PALLETE

| BOTANICAL NAME | COMMON NAME | MIN. SIZE | WUCOLS |
|---|---|---|---|
| CERCIS OCCIDENTALIS | WESTERN REDBUD | 15 GAL | V. LOW |
| DODONAEA VISCOSA `PURPUREA` STD. | PURPLE HOPSEED BUSH | 15 GAL | LOW |
| LAGERSTROEMIA INDICA X FAURIEI `NATCHEZ` | NATCHEZ CRAPE MYRTLE | 24"BOX | LOW |
| LAGERSTROEMIA INDICA X FAURIEI `ZUNI` | ZUNI CRAPE MYRTLE | 15 GAL | LOW |
| LAURUS X `SARATOGA` | SARATOGA HYBRID LAUREL | 24"BOX | LOW |
| LOPHOSTEMON CONFERTUS | BRISBANE BOX | 24"BOX | MOD |
| PISTACIA CHINENSIS `RED PUSH` | RED PUSH CHINESE PISTACHE | 24"BOX | LOW |
| PLATANUS X ACERIFOLIA `COLUMBIA` | LONDON PLANE TREE | 24"BOX | MOD |
| PRUNUS CERASIFERA `KRAUTER VESUVIUS` | PURPLE LEAF PLUM | 15 GAL | MOD |
| QUERCUS AGRIFOLIA | COAST LIVE OAK | 24"BOX | V. LOW |
| RHAPHIOLEPIS INDICA `MAGNIFICENT` | MAGNIFICENT INDIAN HAWTHORN | 15 GAL | MOD |

* WATER NEEDS BASED ON THE WATER USE CLASSIFICATION OF LANDSCAPE SPECIES (WUCOLS) BY THE UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION.

## GENERAL NOTES:

- TREE LAYOUT IS SCHEMATIC. FINAL TREE LOCATIONS AND SPECIES SUBJECT TO CITY REVIEW. STREET TREES LOCATED APPROXIMATELY 30' O.C.
- ALL LANDSCAPE AREAS THAT ARE INSTALLED BY DEVELOPER SHALL RECEIVE IRRIGATION BY MEANS OF AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM(S). THE SYSTEM(S) WILL BE DESIGNED UTILIZING BACKFLOW PREVENTION DEVICES TO MEET LOCAL AND UBC CODES.

MLC Holdings, Inc.
12657 AICOSTA BLVD., STE. 175
SAN RAMON, CA 94583
(925) 543-4004

# SELLERS AVENUE

Oakley, California

## OVERALL LANDSCAPE PLAN

CONCEPTUAL LANDSCAPE PLAN
MAY 26, 2023

vanderToolen Associates
855 Bordeaux Way
Suite 240
Napa, CA 94558

tel: 707.224.2299
www.vandertoolen.com

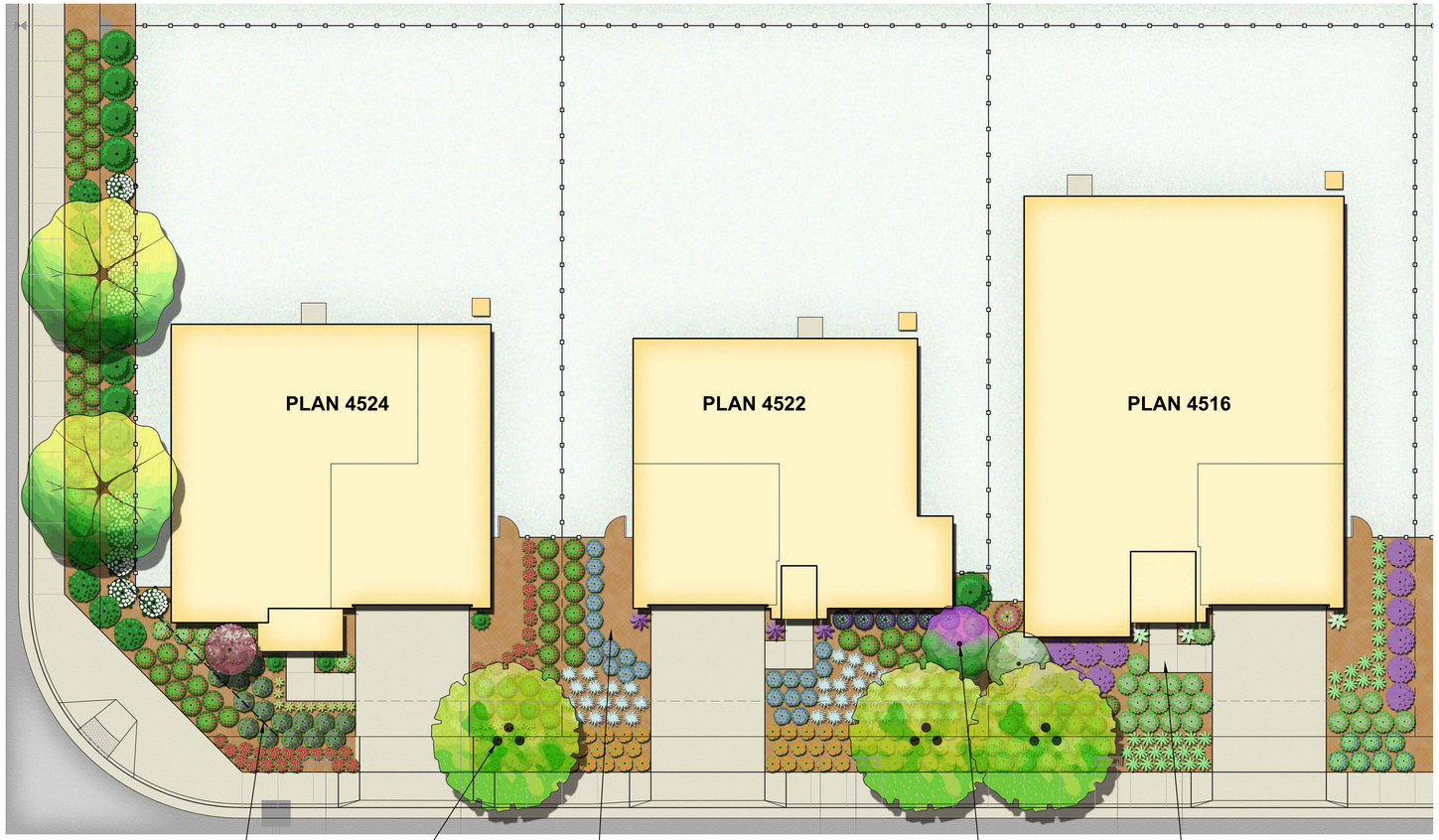
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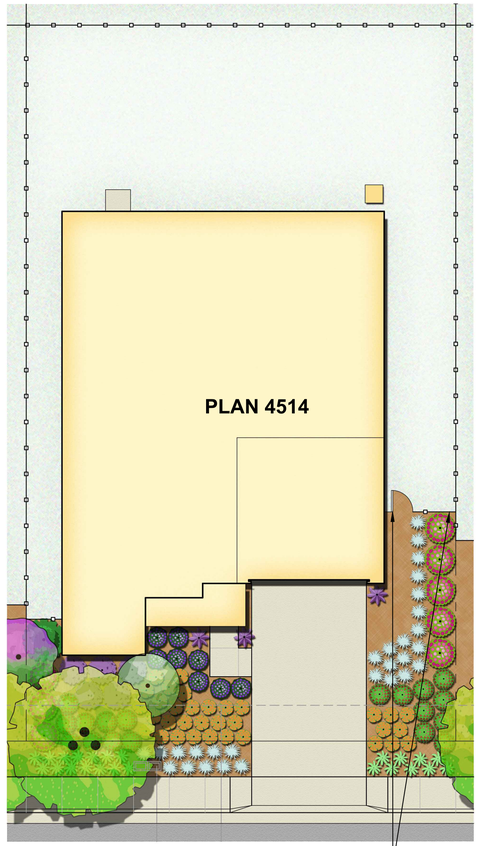
NORTH

L-1

Project No. 05420

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SIGHT TRIANGLE

STREET TREE, TYP.

MULCH AT SIDE YARD GATE

ACCENT TREE, TYP.

4' WIDE CONCRETE WALK

GOOD NEIGHBOR FENCE & GATE

## GENERAL NOTES:

- TREE LAYOUT IS SCHEMATIC. FINAL TREE LOCATIONS AND SPECIES SUBJECT TO CITY REVIEW. STREET TREES LOCATED APPROXIMATELY 30' O.C.
- ALL LANDSCAPE AREAS THAT ARE INSTALLED BY DEVELOPER SHALL RECEIVE IRRIGATION BY MEANS OF AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM(S). THE SYSTEM(S) WILL BE DESIGNED UTILIZING BACKFLOW PREVENTION DEVICES TO MEET LOCAL AND UBC CODES.



ALOE SPP.



ANIGOZANTHOS SPP.



BOUTELOUA G. 'BLONDE AMBITION'



CALANDRINIA GRANDIFLORA



CARPENTERIA CALIFORNICA



CEANOTHUS SPP.



FESTUCA IDAHOENSIS



GALVEZIA SPECIOSA



HELIANTHEMUM NUMMULARIUM



JUNCUS PATENS



LOROPETALUM SPP.



NEPETA X FAASSENII



SALVIA SPP.



SISYRINCHIUM BELLUM

## PROPOSED TREE PALLETE

| BOTANICAL NAME | COMMON NAME | MIN. SIZE | WUCOLS |
|---|---|---|---|
| CERCIS OCCIDENTALIS | WESTERN REDBUD | 15 GAL | V. LOW |
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| LAGERSTROEMIA INDICA X FAURIEI `ZUNI` | ZUNI CRAPE MYRTLE | 15 GAL | LOW |
| LAURUS X `SARATOGA` | SARATOGA HYBRID LAUREL | 24"BOX | LOW |
| LOPHOSTEMON CONFERTUS | BRISBANE BOX | 24"BOX | MOD |
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| RHAPHIOLEPIS INDICA `MAGNIFICENT` | MAGNIFICENT INDIAN HAWTHORN | 15 GAL | MOD |

* WATER NEEDS BASED ON THE WATER USE CLASSIFICATION OF LANDSCAPE SPECIES (WUCOLS) BY THE UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION.

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# SELLERS AVENUE

Oakley, California

## TYPICALS LANDSCAPE PLAN

CONCEPTUAL LANDSCAPE PLAN
MAY 26, 2023

vanderToolen Associates
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Suite 240
Napa, CA 94558

tel: 707.224.2299
www.vandertoolen.com

0' 10' 20' 40'
SCALE: 1" = 10'-0"
NORTH

L-2
Project No. 05420

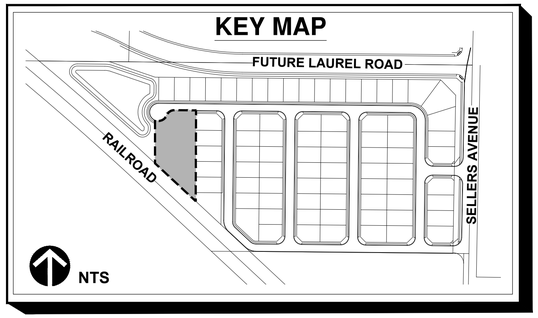
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## PROPOSED SHRUB PALETTE

| BOTANICAL NAME | COMMON NAME | MIN. SIZE | WUCOLS* |
|---|---|---|---|
| **SHRUBS** | | | |
| ARCTOSTAPHYLOS SPP. | MANZANITA | 5 GAL | L |
| CALLISTEMON 'LITTLE JOHN' | DWARF BOTTLEBRUSH | 5 GAL | L |
| CARPENTERIA CALIFORNICA | BUSH ANEMONE | 5 GAL | L |
| CEANOTHUS SPP. | WILD LILAC | 5 GAL | L |
| CISTUS SPP. | ROCK ROSE | 5 GAL | L |
| DIETES SPP. | FORTNIGHT LILY | 1 GAL | L |
| GALVEZIA SPECIOSA | ISLAND SNAPDRAGON | 5 GAL | L |
| GREVILLEA SPP. | GREVILLEA | 5 GAL | L |
| LOROPETALUM SPP. | CHINESE FRINGE FLOWER | 5 GAL | M |
| PHORMIUM SPP. | NEW ZEALAND FLAX | 5 GAL | M |
| PITTOSPORUM SPP. | PITTOSPORUM | 5 GAL | M |
| RHAMNUS CALFORNICA | COFFEE BERRY | 5 GAL | L |
| RHAPHIOLEPIS SPP. | INDIA HAWTHORN | 5 GAL | M |
| ROSA SPP. | LANDSCAPE ROSES | 2 GAL | M |
| SALVIA SPP. | SAGE | 1 GAL | L |
| SOLLYA HETEROPHYLLA | BLUEBELL CREEPER | 1 GAL | L |
| TEUCRIUM SPP. | GERMANDER | 5 GAL | L |
| WESTRINGIA FRUTICOSA | COAST ROSEMARY | 5 GAL | L |
| **ACCENTS** | | | |
| ACACIA C. 'COUSIN ITT' | LITTLE RIVER WATTLE | 1 GAL | L |
| ACHILLEA MILLEFOLIUM | YARROW | 1 GAL | L |
| AGAVE SPP. | AGAVE | 1 GAL | L |
| ALOE SPP. | ALOE | 1 GAL | L |
| ANIGOZANTHOS SPP. | KANGAROO PAW | 1 GAL | L |
| BOUTELOUA G. 'BLONDE AMBITION' | BLUE GRAMA GRASS | 1 GAL | L |
| CALAMGROSTIS A. 'KARL FOERSTER' | FEATHER REED GRASS | 1 GAL | L |
| CALANDRINIA GRANDIFLORA | ROCK PURSLANE | 1 GAL | L |
| ERIOGONUM GRANDE RUBESCENS | BUCKWHEAT | 1 GAL | L |
| HELICTOTRICHON SEMPERVIRENS | BLUE OAT GRASS | 1 GAL | L |
| LOMANDRA SPP. | DWARF MAT RUSH | 1 GAL | L |
| NANDINA D. 'LEMON LIME' | HEAVENLY BAMBOO | 1 GAL | L |
| NEPETA X FAASSENII | CATMINT | 1 GAL | L |
| PENSTEMON HETEROPHYLLUS | BEARDTONGUE | 1 GAL | L |
| VERBENA LILACINA 'DE LA MINA' | CEDROS ISLAND VERBENA | 1 GAL | L |
| ZAUSCHNERIA CALIFORNICA | CALIFORNIA FUCHSIA | 1 GAL | L |
| **GROUNDCOVERS** | | | |
| CAREX DIVULSA | BERKELEY SEDGE | 1 GAL | L |
| COTONEASTER D. LOWFAST | BEARBERRY COTONEASTER | 1 GAL | L |
| ERIGERON KARVINSKIANUS | SANTA BARBARA DAISY | 1 GAL | L |
| FRAGARIA CHILOENSIS | BEACH STRAWBERRY | 1 GAL | M |
| HELIANTHEMUM NUMMULARIUM | SUNROSE | 1 GAL | M |
| MYOPORUM P. 'PROSTRATUM' | CREEPING MYOPORUM | 1 GAL | L |
| SCAEVOLA ' MAUVE CLUSTER' | FAIRY FAN FLOWER | 1 GAL | L |
| STACHYS BYZANTINA WESTRINGIA | LAMBS' EARS LOW | 1 GAL | L |
| FRUTICOSA `MUNDI` TM | COAST ROSEMARY | 1 GAL | L |
| **BIO-RETENTION BASINS & SWALES** | | | |
| DESCHAMPSIA CESPITOSA | TUFTED HAIRGRASS | PLUGS | L |
| FESTUCA IDAHOENSIS | IDAHO FESCUE | PLUGS | L |
| JUNCUS PATENS | BLUE RUSH | PLUGS | M |
| LEYMUS TRITICOIDES 'GREY DAWN' | CREEPING WILD RYE | PLUGS | L |
| MIMULUS AURANTIACUS | STICKY MONKEYFLOWER | 1 GAL | L |
| MUHLENBERGIA RIGENS | DEERGRASS | 1 GAL | L |
| PRUNELLA VULGARIS | SELFHEAL | 1 GAL | M |
| ROSA CALIFORNICA | CALIFORNIA ROSE | 2 GAL | L |
| SISYRINCHIUM BELLUM | BLUE-EYED GRASS | 1 GAL | L |

* WATER NEEDS BASED ON THE WATER USE CLASSIFICATION OF LANDSCAPE SPECIES (WUCOLS) BY THE UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION.

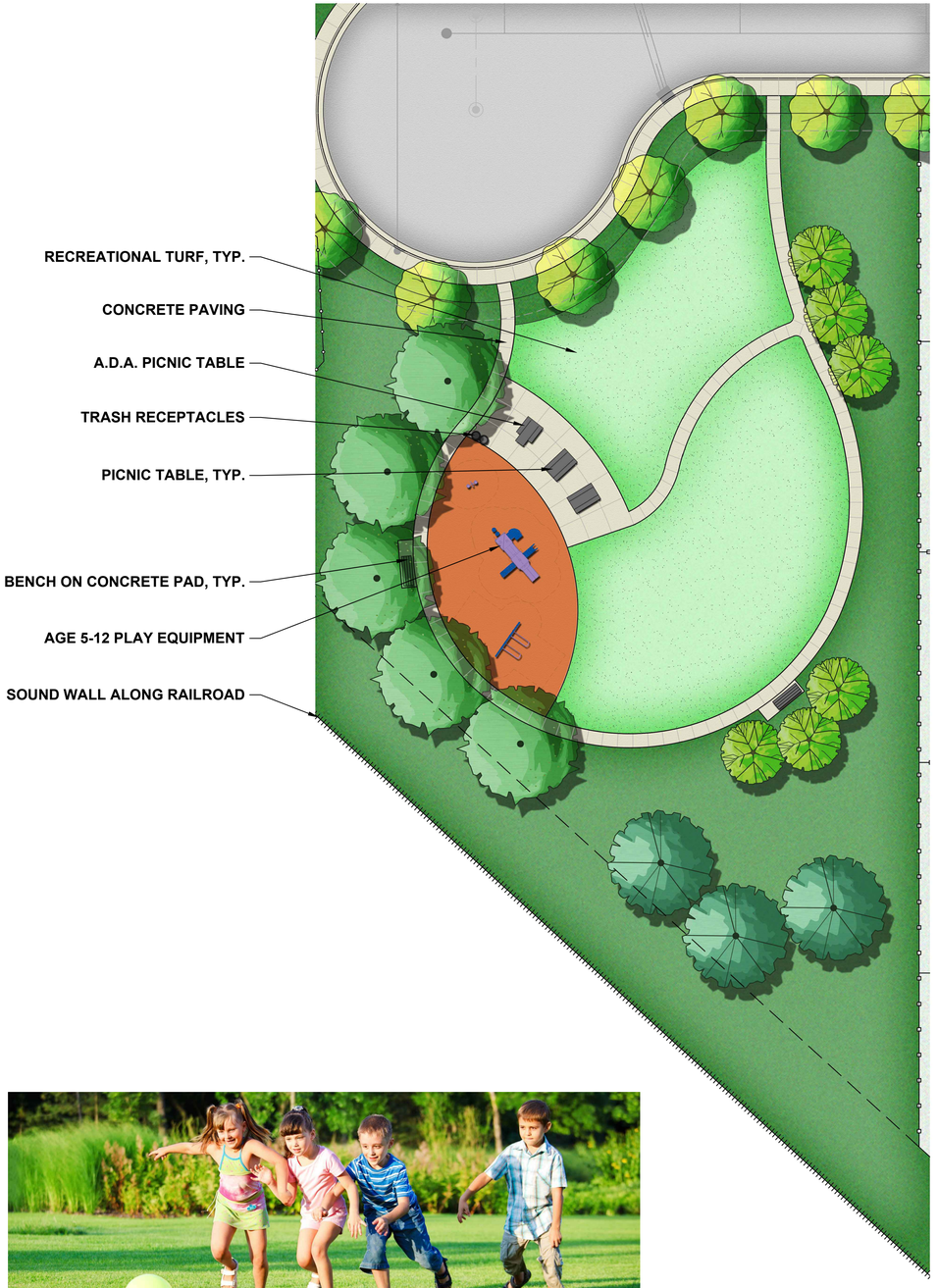
## KEY MAP




## PROPOSED TREE PALLETE

| BOTANICAL NAME | COMMON NAME | MIN. SIZE | WUCOLS |
|---|---|---|---|
| CERCIS OCCIDENTALIS | WESTERN REDBUD | 15 GAL | V. LOW |
| DODONAEA VISCOSA `PURPUREA` STD. | PURPLE HOPSEED BUSH | 15 GAL | LOW |
| LAGERSTROEMIA INDICA X FAURIEI `NATCHEZ` | NATCHEZ CRAPE MYRTLE | 24"BOX | LOW |
| LAGERSTROEMIA INDICA X FAURIEI `ZUNI` | ZUNI CRAPE MYRTLE | 15 GAL | LOW |
| LAURUS X `SARATOGA` | SARATOGA HYBRID LAUREL | 24"BOX | LOW |
| LOPHOSTEMON CONFERTUS | BRISBANE BOX | 24"BOX | MOD |
| PISTACIA CHINENSIS `RED PUSH` | RED PUSH CHINESE PISTACHE | 24"BOX | LOW |
| PLATANUS X ACERIFOLIA `COLUMBIA` | LONDON PLANE TREE | 24"BOX | MOD |
| PRUNUS CERASIFERA `KRAUTER VESUVIUS` | PURPLE LEAF PLUM | 15 GAL | MOD |
| QUERCUS AGRIFOLIA | COAST LIVE OAK | 24"BOX | V. LOW |
| RHAPHIOLEPIS INDICA `MAGNIFICENT` | MAGNIFICENT INDIAN HAWTHORN | 15 GAL | MOD |

* WATER NEEDS BASED ON THE WATER USE CLASSIFICATION OF LANDSCAPE SPECIES (WUCOLS) BY THE UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION.




### GENERAL NOTES:

- TREE LAYOUT IS SCHEMATIC. FINAL TREE LOCATIONS AND SPECIES SUBJECT TO CITY REVIEW. STREET TREES LOCATED APPROXIMATELY 30' O.C.
- ALL LANDSCAPE AREAS THAT ARE INSTALLED BY DEVELOPER SHALL RECEIVE IRRIGATION BY MEANS OF AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM(S). THE SYSTEM(S) WILL BE DESIGNED UTILIZING BACKFLOW PREVENTION DEVICES TO MEET LOCAL AND UBC CODES.



PLAY EQUIPMENT



PICNIC TABLE



RECREATIONAL TURF

MLC Holdings, Inc.
12657 AICOSTA BLVD., STE. 175
SAN RAMON, CA 94583
(925) 543-4004

# SELLERS AVENUE

Oakley, California

**PARK ENLARGEMENT**
CONCEPTUAL LANDSCAPE PLAN
MAY 26, 2023

vanderToolen Associates
855 Bordeaux Way
Suite 240
Napa, CA 94558

tel: 707.224.2299
www.vandertoolen.com

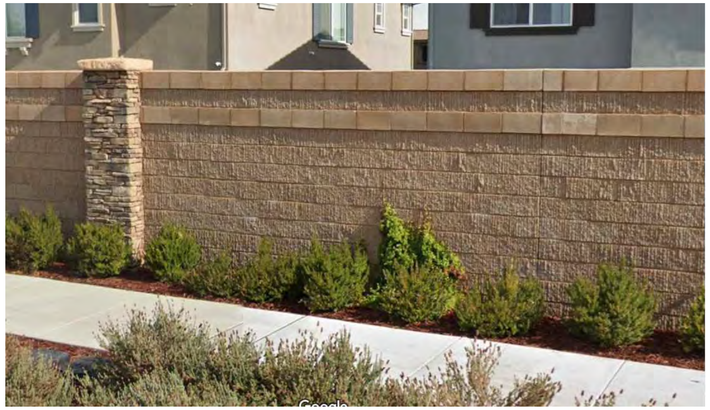
SCALE: 1" = 20'-0" (0' 10' 20' 40')

NORTH

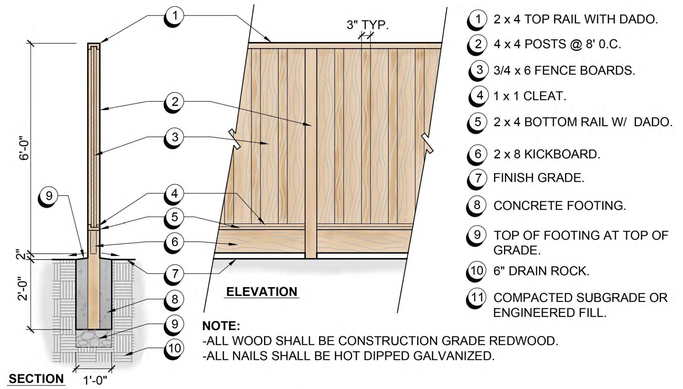
L-3

Project No. 05420

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## A SOUND WALL




1. 2 x 4 TOP RAIL WITH DADO.
2. 4 x 4 POSTS @ 8' 0.C.
3. 3/4 x 6 FENCE BOARDS.
4. 1 x 1 CLEAT.
5. 2 x 4 BOTTOM RAIL W/ DADO.
6. 2 x 8 KICKBOARD.
7. FINISH GRADE.
8. CONCRETE FOOTING.
9. TOP OF FOOTING AT TOP OF GRADE.
10. 6" DRAIN ROCK.
11. COMPACTED SUBGRADE OR ENGINEERED FILL.

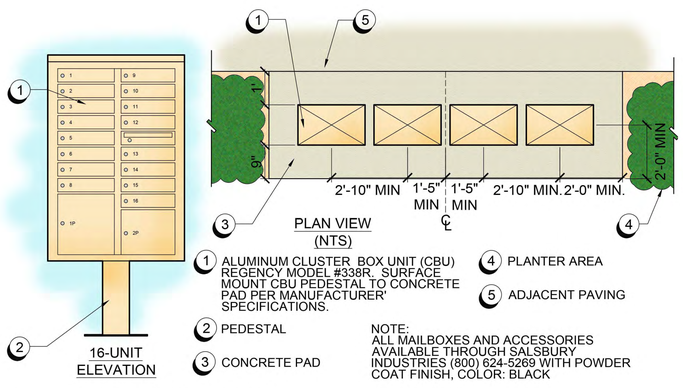
**NOTE:**
-ALL WOOD SHALL BE CONSTRUCTION GRADE REDWOOD.
-ALL NAILS SHALL BE HOT DIPPED GALVANIZED.

## B GOOD NEIGHBOR FENCE

SCALE: 1/2" = 1'-0 "



## C ENHANCED PAVING

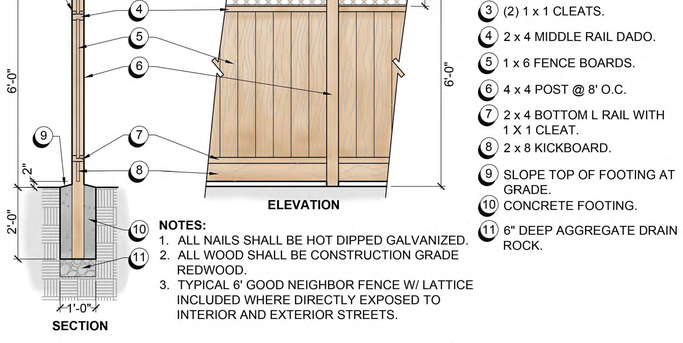



1. ALUMINUM CLUSTER BOX UNIT (CBU) REGENCY MODEL #338R. SURFACE MOUNT CBU PEDESTAL TO CONCRETE PAD PER MANUFACTURER' SPECIFICATIONS.
2. PEDESTAL
3. CONCRETE PAD
4. PLANTER AREA
5. ADJACENT PAVING

NOTE:
ALL MAILBOXES AND ACCESSORIES AVAILABLE THROUGH SALSBURY INDUSTRIES (800) 624-5269 WITH POWDER COAT FINISH; COLOR: BLACK

## D CBU MAILBOX

N.T.S.




1. 2 x 4 TOP RAIL DADO.
2. DIAGONAL WOOD LATTICE.
3. (2) 1 x 1 CLEATS.
4. 2 x 4 MIDDLE RAIL DADO.
5. 1 x 6 FENCE BOARDS.
6. 4 x 4 POST @ 8' O.C.
7. 2 x 4 BOTTOM L RAIL WITH 1 X 1 CLEAT.
8. 2 x 8 KICKBOARD.
9. SLOPE TOP OF FOOTING AT GRADE.
10. CONCRETE FOOTING.
11. 6" DEEP AGGREGATE DRAIN ROCK.

**NOTES:**
1. ALL NAILS SHALL BE HOT DIPPED GALVANIZED.
2. ALL WOOD SHALL BE CONSTRUCTION GRADE REDWOOD.
3. TYPICAL 6' GOOD NEIGHBOR FENCE W/ LATTICE INCLUDED WHERE DIRECTLY EXPOSED TO INTERIOR AND EXTERIOR STREETS.

## E GOOD NEIGHBOR FENCE W/ LATTICE

SCALE: 1/2" = 1'-0 "

MLC Holdings, Inc.
12657 AICOSTA BLVD., STE. 175
SAN RAMON, CA 94583
(925) 543-4004

# SELLERS AVENUE

Oakley, California

## LANDSCAPE IMAGERY & DETAILS

CONCEPTUAL LANDSCAPE PLAN
MAY 26, 2023

vanderToolen Associates
855 Bordeaux Way
Suite 240
Napa, CA 94558

tel: 707.224.2299
www.vandertoolen.com

L-4

Project No. 05420

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SANTA BARBARA
PLAN 4522

FARMHOUSE
PLAN 4516-R

SANTA BARBARA
PLAN 4524

SPANISH
PLAN 4514-R

STREET SCENE

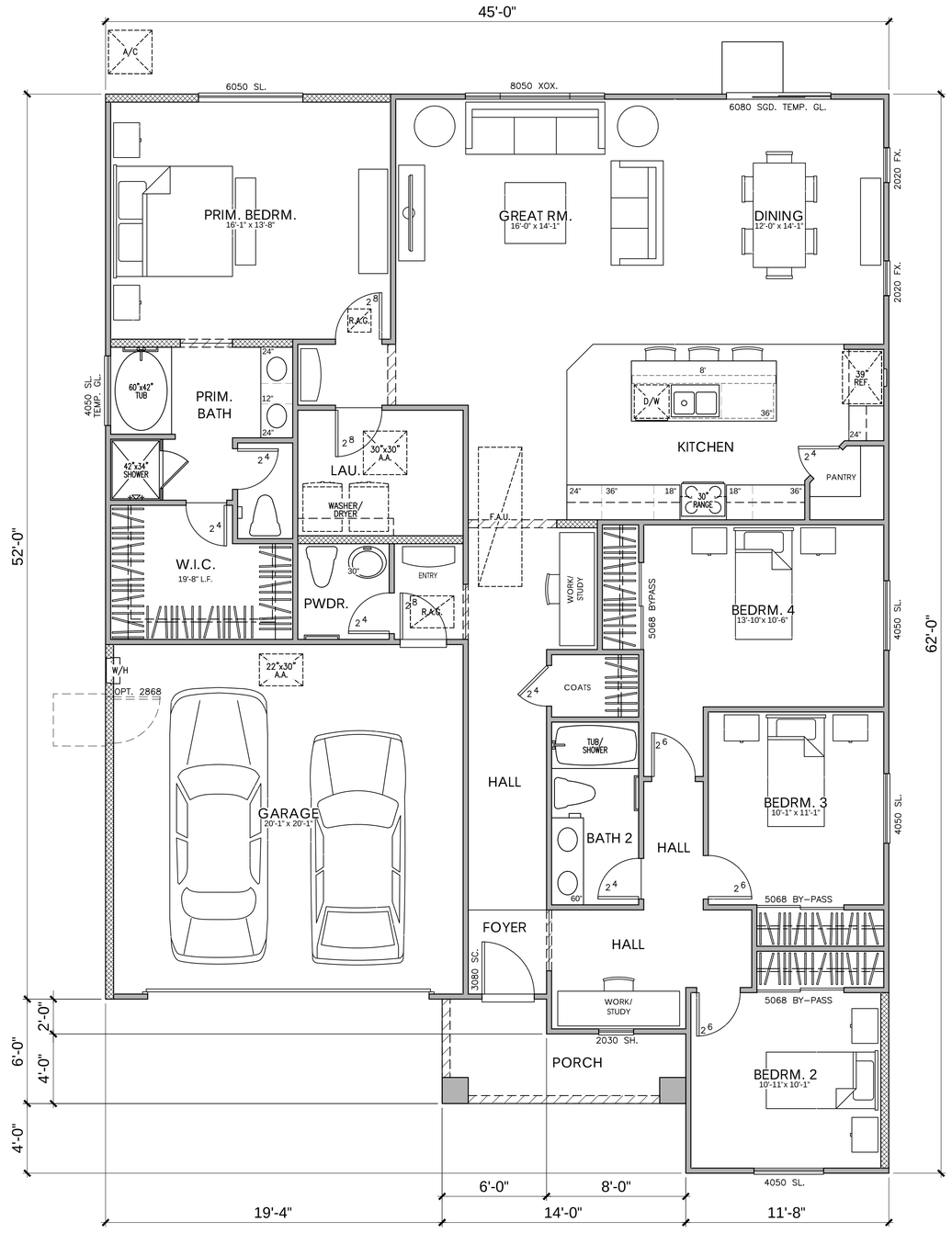
Meritage Homes

# SELLER'S AVENUE

OAKLEY, CA

06/06/2023
A-1

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE
#21012




FLOOR PLAN

# PLAN 4514

4 BEDROOM, 2.5 BATH

PLAN 4514
AREA TABULATION

| CONDITIONED SPACE | |
|---|---|
| FLOOR AREA | 2,054 SQ. FT. |
| TOTAL DWELLING | 2,054 SQ. FT. |
| **UNCONDITIONED SPACE** | |
| GARAGE | 419 SQ. FT. |
| PATIO | 68 SQ. FT. |

0 2 4 8 12

Meritage Homes

# SELLER'S AVENUE

OAKLEY, CA

06/06/2023
A-2

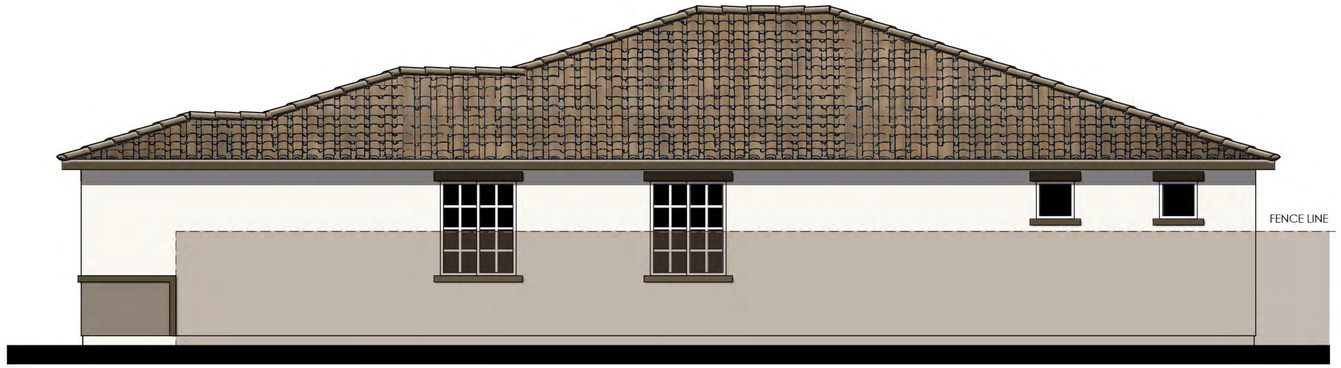
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PLANNING + ARCHITECTURE



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Refer to landscape drawings for wall, tree, and shrub locations

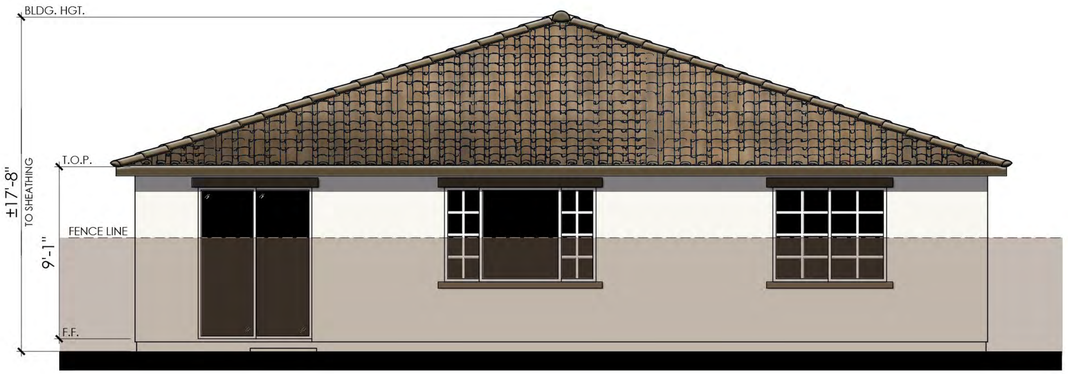
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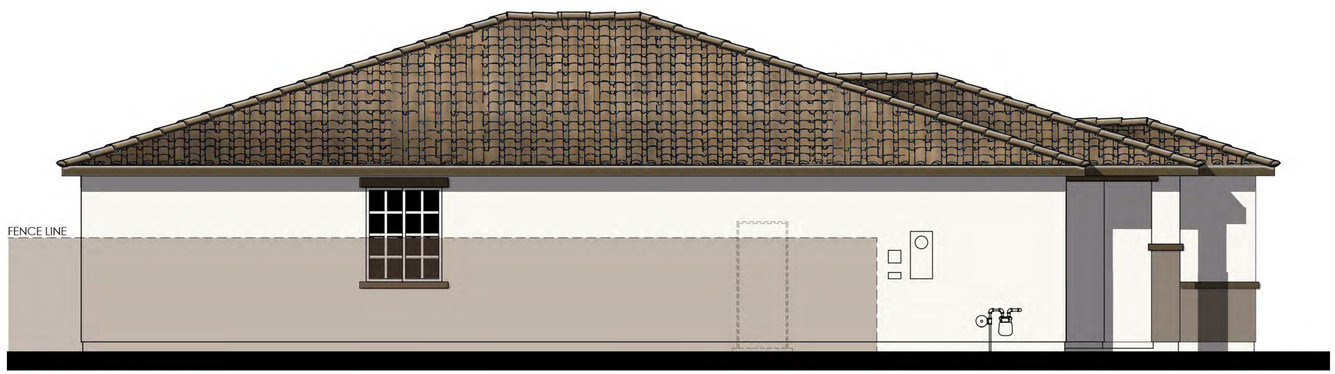

RIGHT

## MATERIALS LEGEND
(WHERE OCCURS)

| | |
|---|---|
| FRONT DOOR: | FIBERGLASS |
| GARAGE DOOR: | METAL SECTIONAL |
| ROOF: | CONCRETE LOW PROFILE "S" TILE |
| FASCIA: | 2x6 WOOD |
| BARGE: | 2x6 WOOD |
| WALL: | STUCCO |
| WINDOWS: | VINYL W/ GRIDS |
| SHUTTERS: | SIMULATED WOOD |
| TRIM: | STUCCO OVER FOAM |




REAR




LEFT

COLOR SCHEME 17

# PLAN 4514 "A"
## SPANISH ELEVATIONS

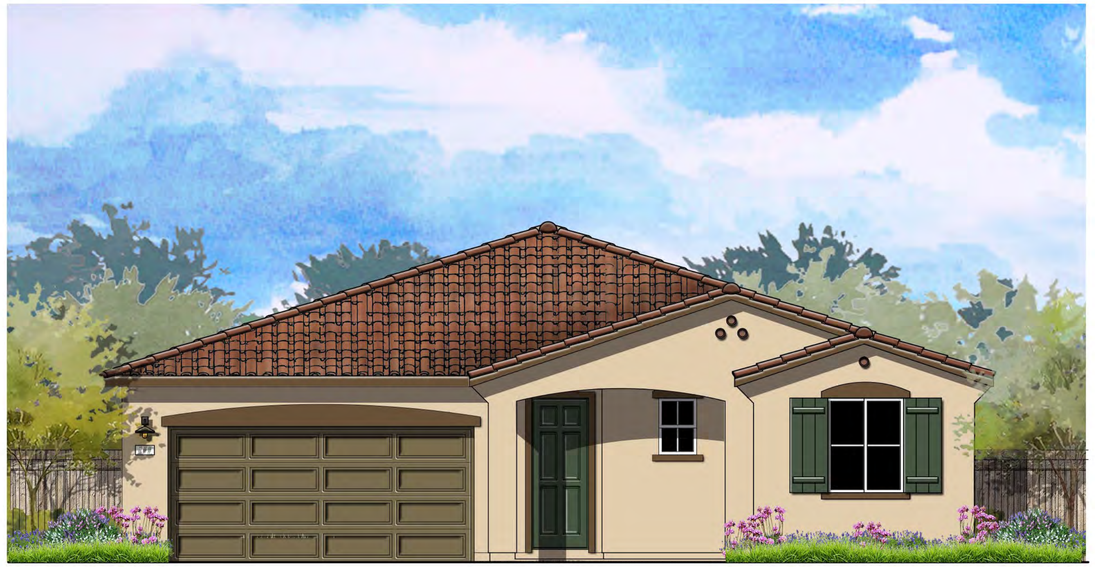
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# SELLER'S AVENUE
OAKLEY, CA

06/06/2023
A-3

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Refer to landscape drawings for wall, tree, and shrub locations

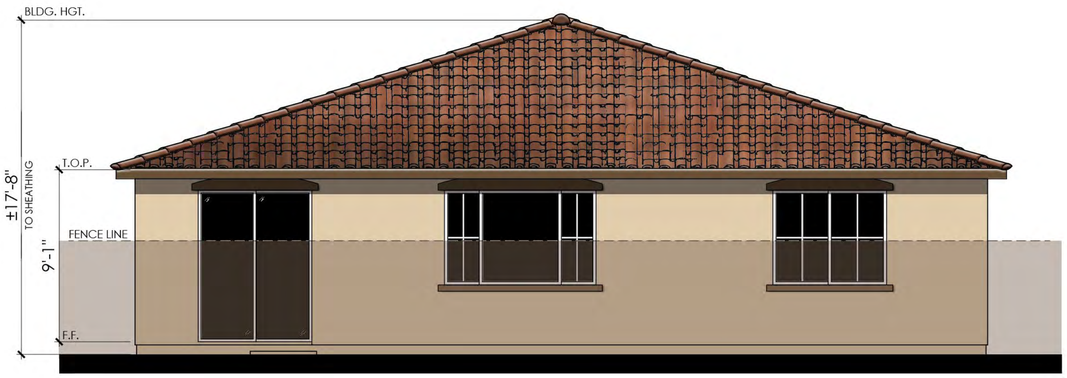
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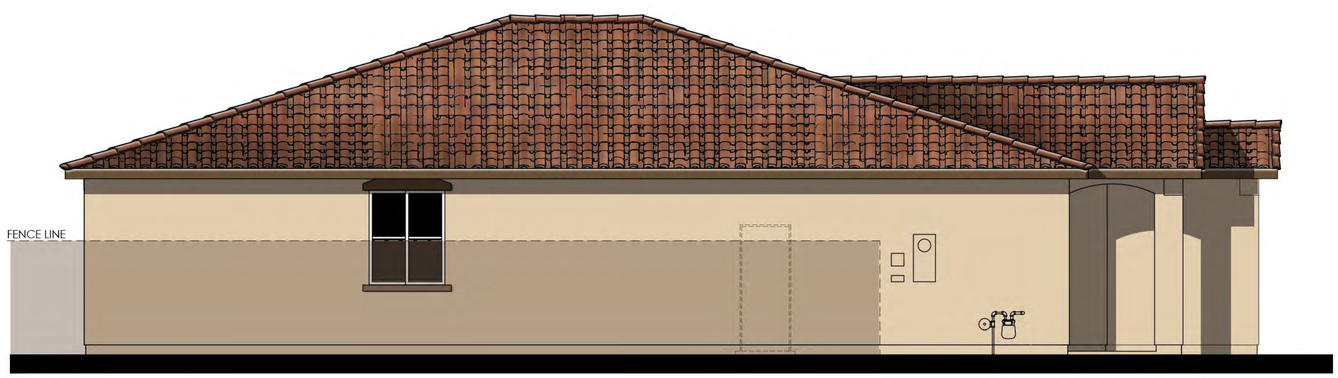

RIGHT

## MATERIALS LEGEND
(WHERE OCCURS)

| | |
|---|---|
| FRONT DOOR: | FIBERGLASS |
| GARAGE DOOR: | METAL SECTIONAL |
| ROOF: | CONCRETE LOW PROFILE "S" TILE |
| FASCIA: | 2x6 WOOD |
| BARGE: | 2x6 WOOD |
| GABLE END: | SIMULATED CLAY TILE |
| WALL: | STUCCO |
| WINDOWS: | VINYL W/ GRIDS |
| SHUTTERS: | SIMULATED WOOD |
| TRIM: | STUCCO OVER FOAM |




REAR




LEFT

COLOR SCHEME 20

# PLAN 4514 "B"

## SANTA BARBARA ELEVATIONS

0 2 4 8 12

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# SELLER'S AVENUE

OAKLEY, CA

06/06/2023
A-4

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Refer to landscape drawings for wall, tree, and shrub locations

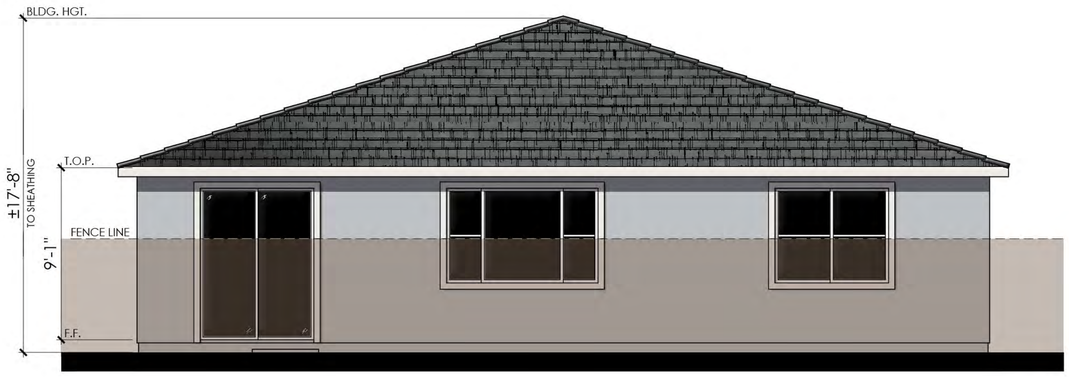
FRONT



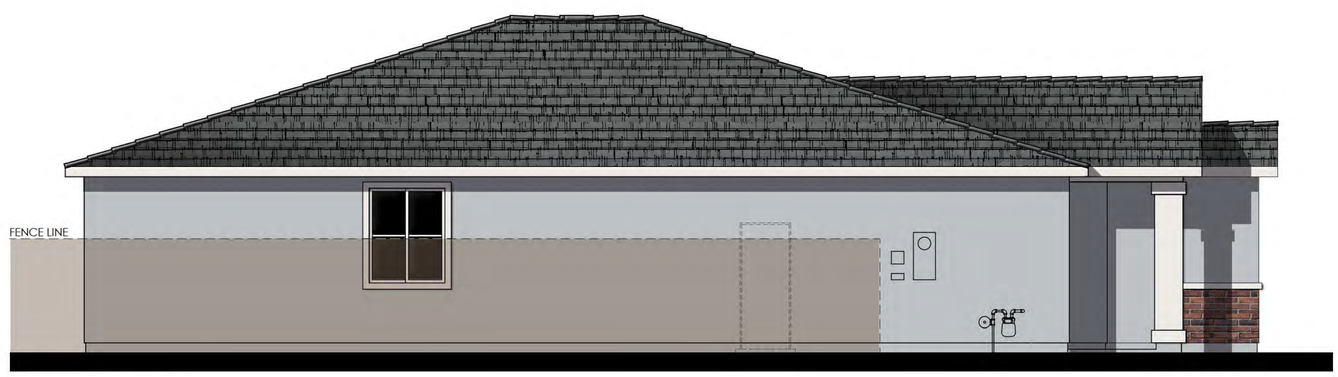

RIGHT

## MATERIALS LEGEND
(WHERE OCCURS)

| | |
|---|---|
| FRONT DOOR: | FIBERGLASS |
| GARAGE DOOR: | METAL SECTIONAL W/ WINDOWS |
| ROOF: | CONCRETE FLAT TILE |
| FASCIA: | 2x6 WOOD |
| BARGE: | 2x6 WOOD |
| GABLE: | CEMENTITIOUS BOARD AND BATTEN W/ DECORATIVE GABLE END VENTS |
| WALL: | STUCCO |
| WINDOWS: | VINYL W/ GRIDS |
| SHUTTERS: | SIMULATED WOOD |
| TRIM: | STUCCO OVER RIGID FOAM |
| VENEER: | MANUFACTURED BRICK |




REAR




LEFT

COLOR SCHEME 29

# PLAN 4514 "E"
## FARMHOUSE ELEVATIONS

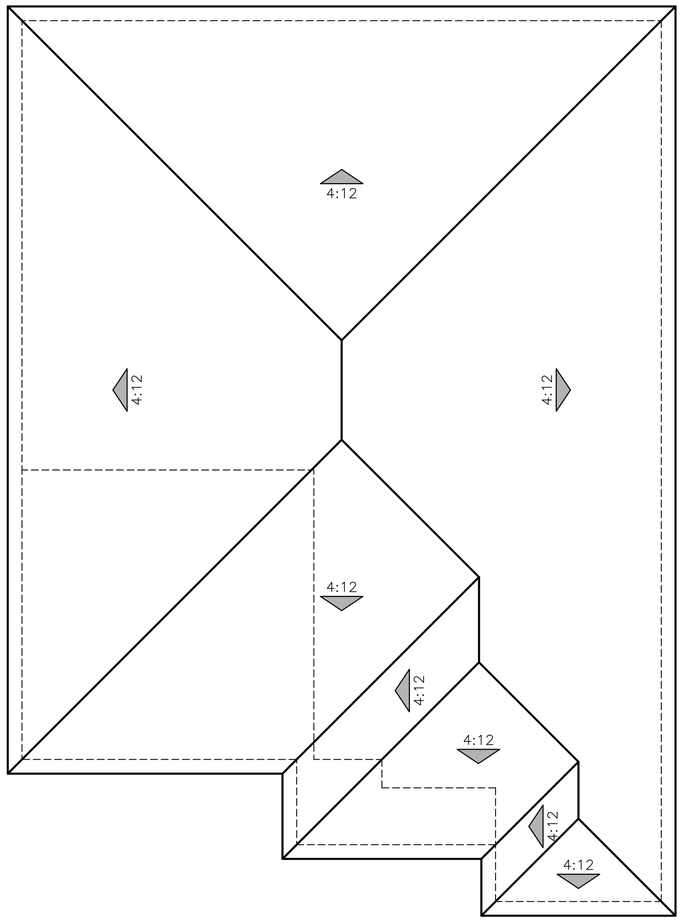
0 2 4 8 12

Meritage Homes

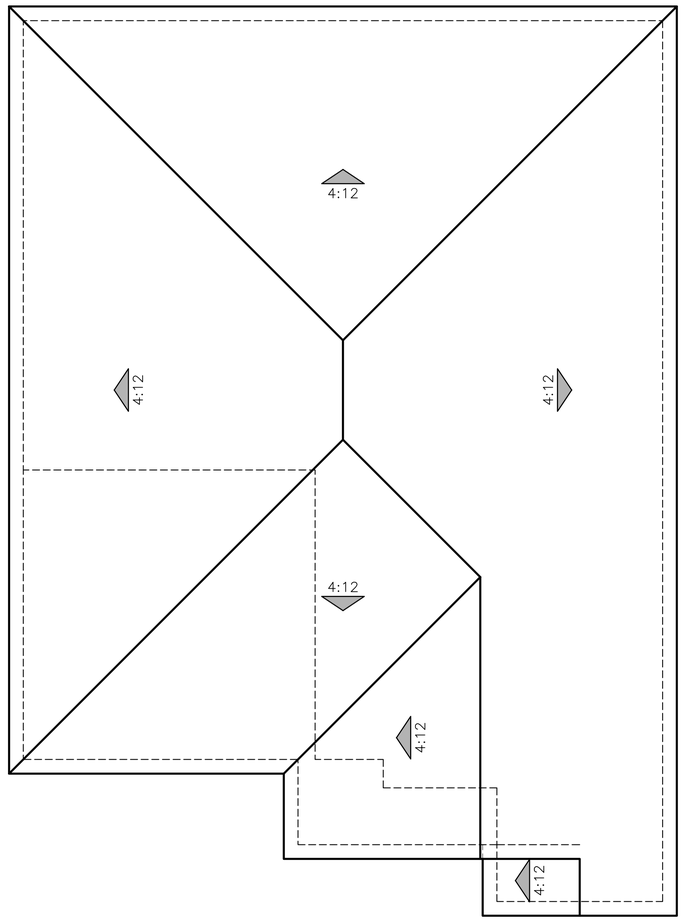
# SELLER'S AVENUE
OAKLEY, CA

06/06/2023
A-5

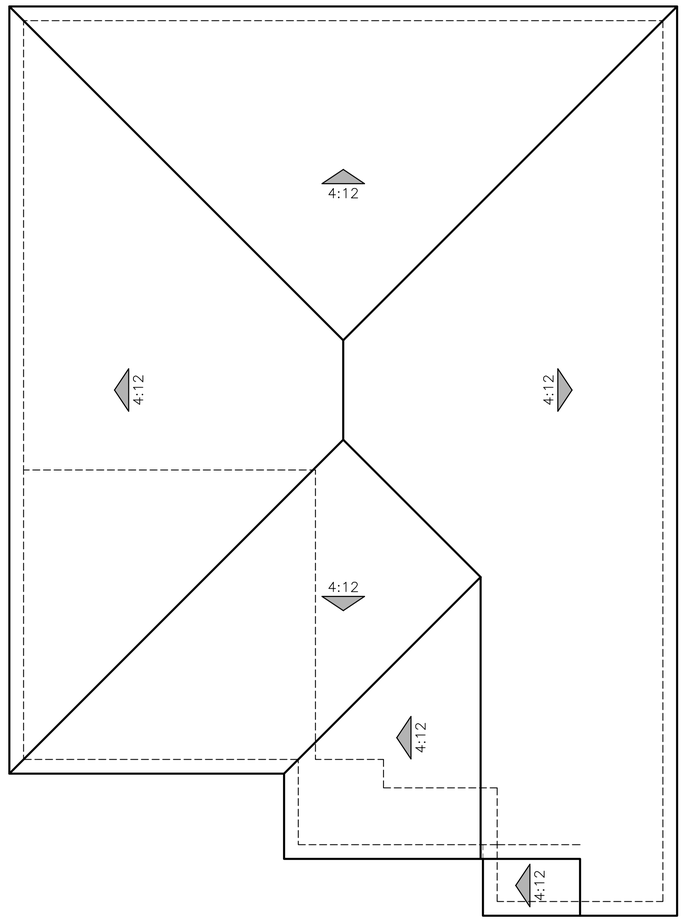
Kevin L. Crook Architect Inc #21012
PLANNING + ARCHITECTURE




"A" - SPANISH




"B" - SANTA BARBARA




"E" - FARMHOUSE

ROOF PLANS

PLAN 4514

0 2 4 8 12

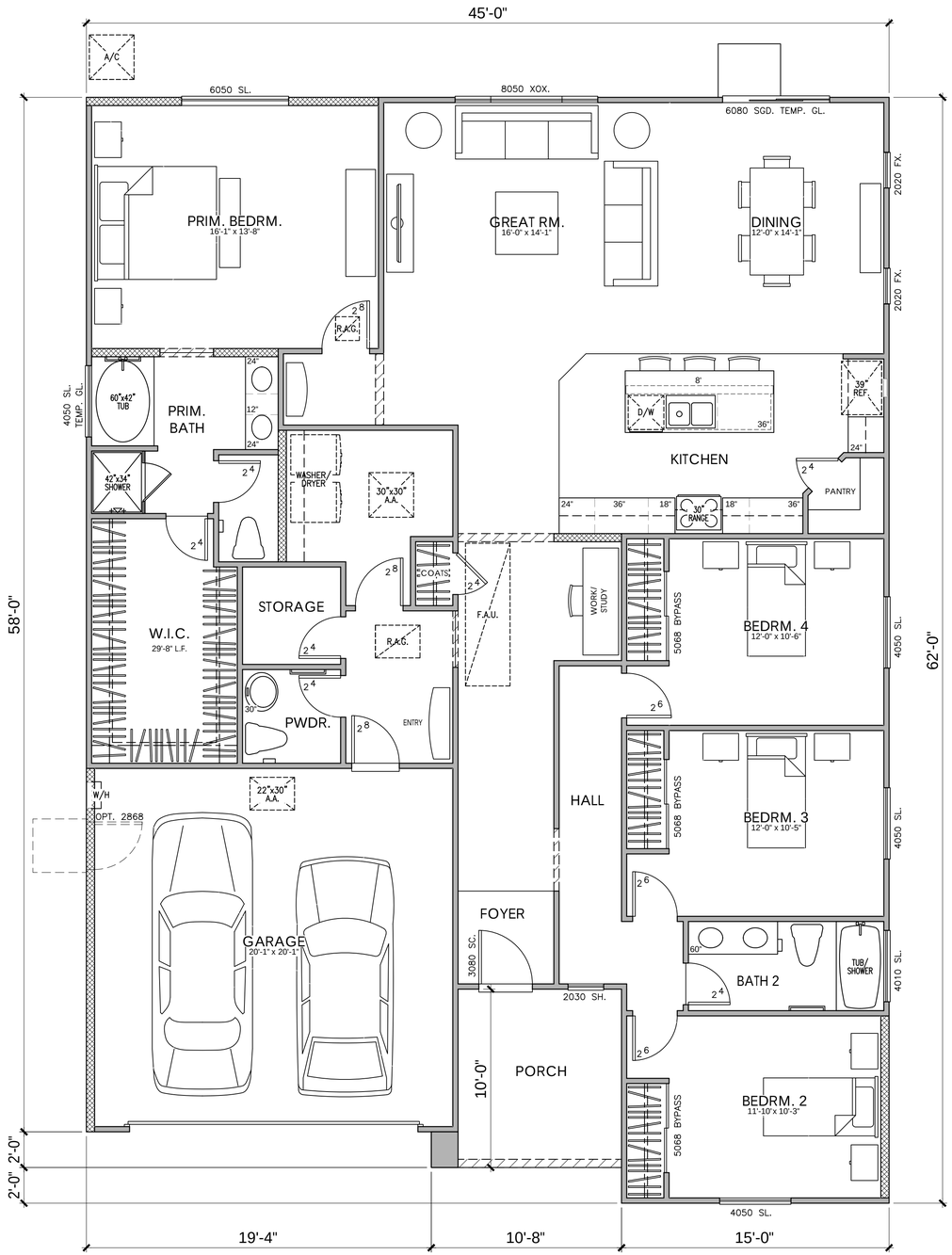
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# SELLER'S AVENUE

OAKLEY, CA

06/06/2023
A-6

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE
#21012




FLOOR PLAN

# PLAN 4516

4 BEDROOM, 2.5 BATH, STORAGE

PLAN 4516
AREA TABULATION

| | |
|---|---|
| **CONDITIONED SPACE** | |
| FLOOR AREA | 2,176 SQ. FT. |
| TOTAL DWELLING | 2,176 SQ. FT. |
| **UNCONDITIONED SPACE** | |
| GARAGE | 421 SQ. FT. |
| PATIO | 95 SQ. FT. |

0 2 4 8 12

Meritage Homes

# SELLER'S AVENUE

OAKLEY, CA

06/06/2023
A-7

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Refer to landscape drawings for wall, tree, and shrub locations

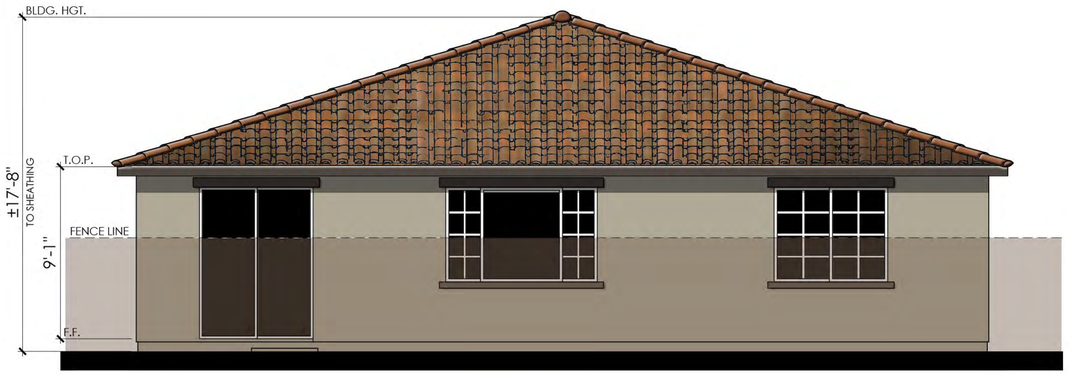
FRONT



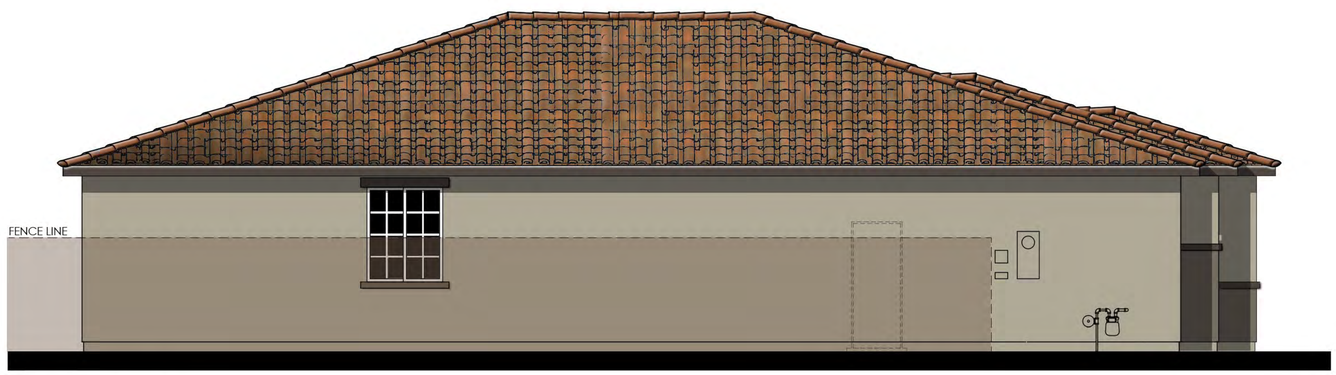

RIGHT

## MATERIALS LEGEND
(WHERE OCCURS)

| | |
|---|---|
| FRONT DOOR: | FIBERGLASS |
| GARAGE DOOR: | METAL SECTIONAL |
| ROOF: | CONCRETE LOW PROFILE "S" TILE |
| FASCIA: | 2x6 WOOD |
| BARGE: | 2x6 WOOD |
| WALL: | STUCCO |
| WINDOWS: | VINYL W/ GRIDS |
| SHUTTERS: | SIMULATED WOOD |
| TRIM: | STUCCO OVER FOAM |




REAR




LEFT

COLOR SCHEME 16

# PLAN 4516 "A"
## SPANISH ELEVATIONS

0 2 4 8 12

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# SELLER'S AVENUE
OAKLEY, CA

06/06/2023
A-8

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Refer to landscape drawings for wall, tree, and shrub locations

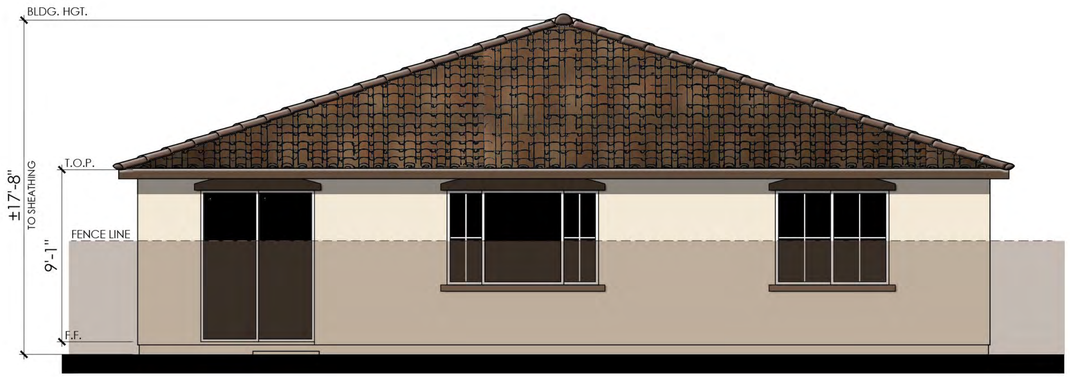
FRONT



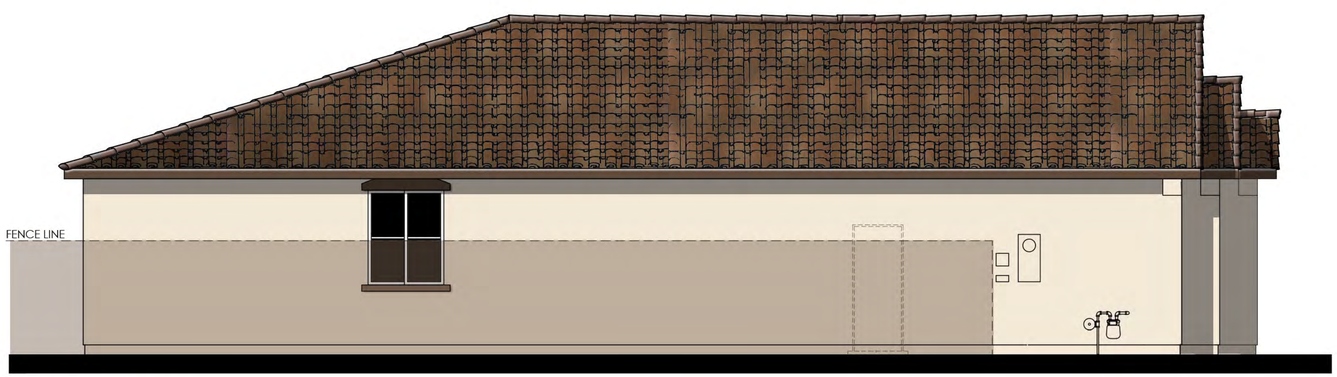

RIGHT

## MATERIALS LEGEND
(WHERE OCCURS)

| | |
|---|---|
| FRONT DOOR: | FIBERGLASS |
| GARAGE DOOR: | METAL SECTIONAL |
| ROOF: | CONCRETE LOW PROFILE "S" TILE |
| FASCIA: | 2x6 WOOD |
| BARGE: | 2x6 WOOD |
| GABLE END: | SIMULATED CLAY TILE |
| WALL: | STUCCO |
| WINDOWS: | VINYL W/ GRIDS |
| SHUTTERS: | SIMULATED WOOD |
| TRIM: | STUCCO OVER FOAM |




REAR




LEFT

COLOR SCHEME 19

# PLAN 4516 "B"

SANTA BARBARA ELEVATIONS

0 2 4 8 12

Meritage Homes

# SELLER'S AVENUE

OAKLEY, CA

06/06/2023
A-9

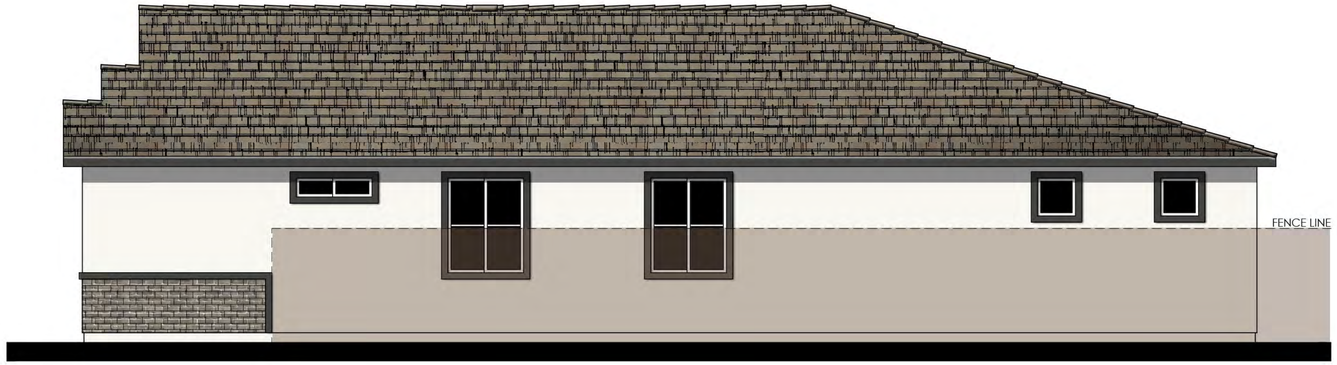
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Refer to landscape drawings for wall, tree, and shrub locations

FRONT



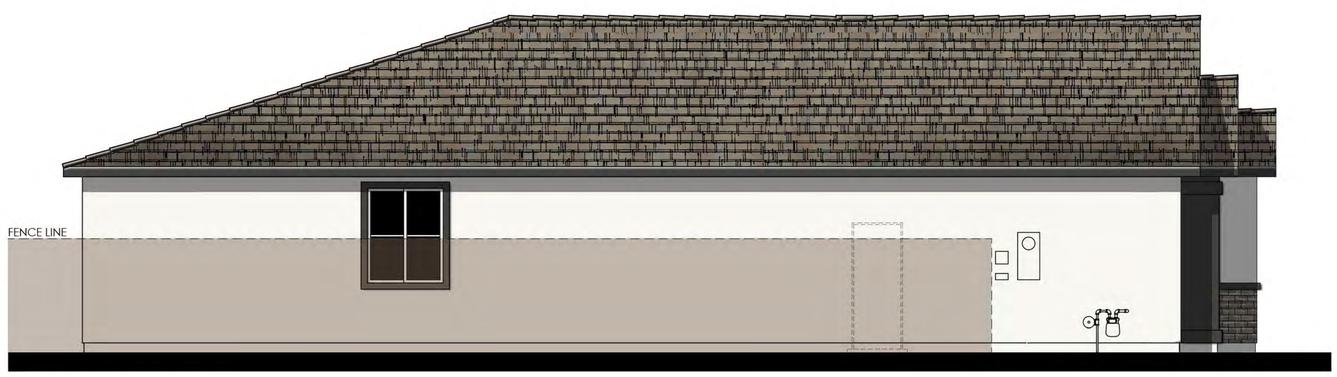

RIGHT

## MATERIALS LEGEND
(WHERE OCCURS)

| | |
|---|---|
| FRONT DOOR: | FIBERGLASS |
| GARAGE DOOR: | METAL SECTIONAL W/ WINDOWS |
| ROOF: | CONCRETE FLAT TILE |
| FASCIA: | 2x6 WOOD |
| BARGE: | 2x6 WOOD |
| GABLE: | CEMENTITIOUS BOARD AND BATTEN W/ DECORATIVE GABLE END VENTS |
| WALL: | STUCCO |
| WINDOWS: | VINYL W/ GRIDS |
| SHUTTERS: | SIMULATED WOOD |
| TRIM: | STUCCO OVER RIGID FOAM |
| VENEER: | MANUFACTURED BRICK |




REAR




LEFT

COLOR SCHEME 28

# PLAN 4516 "E"
## FARMHOUSE ELEVATIONS

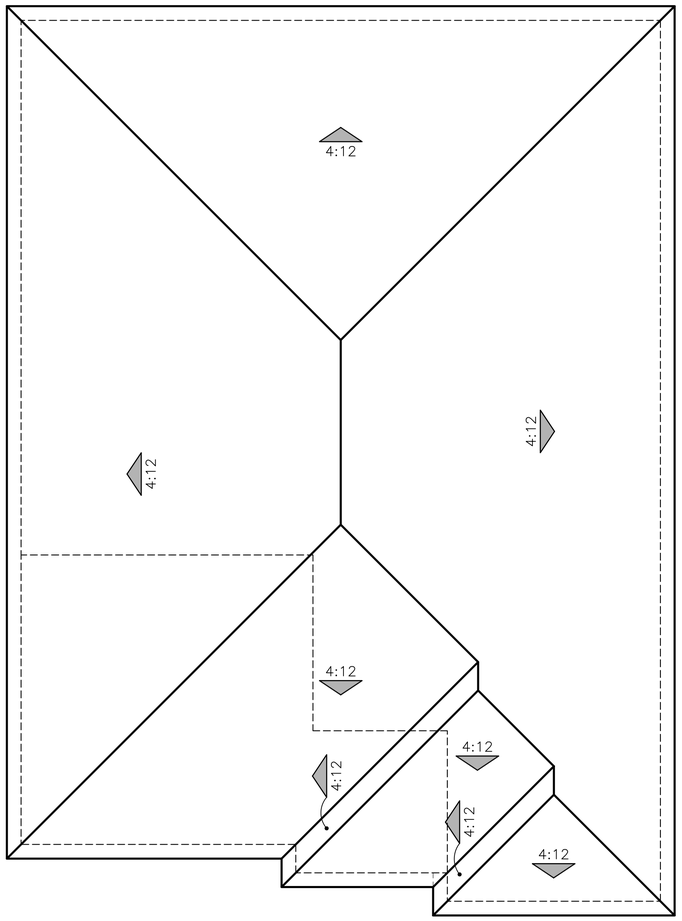
0 2 4 8 12

Meritage Homes

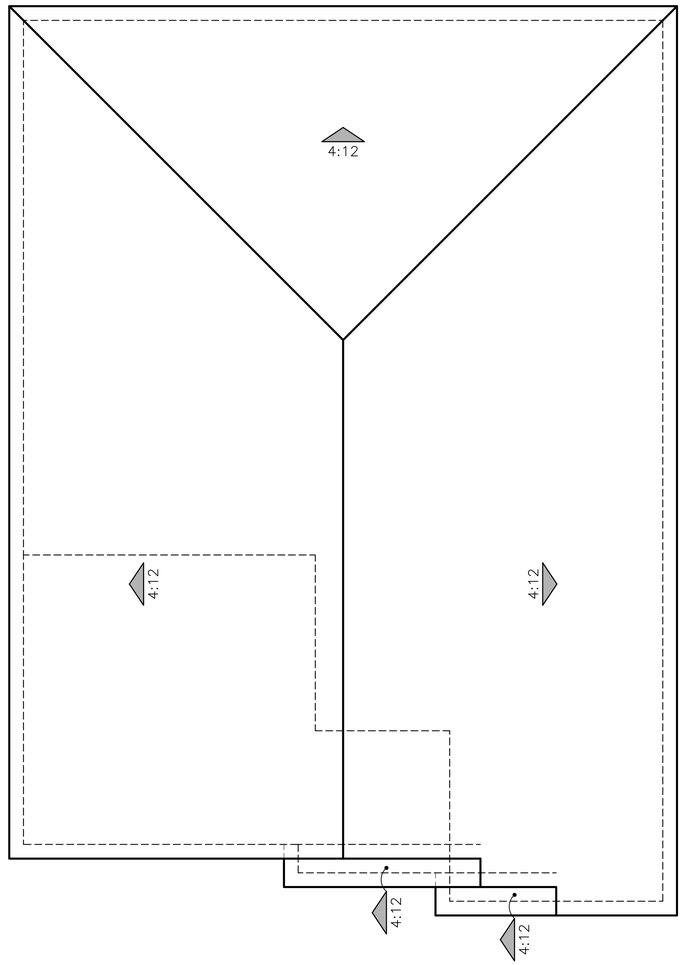
# SELLER'S AVENUE
OAKLEY, CA

06/06/2023
A-10

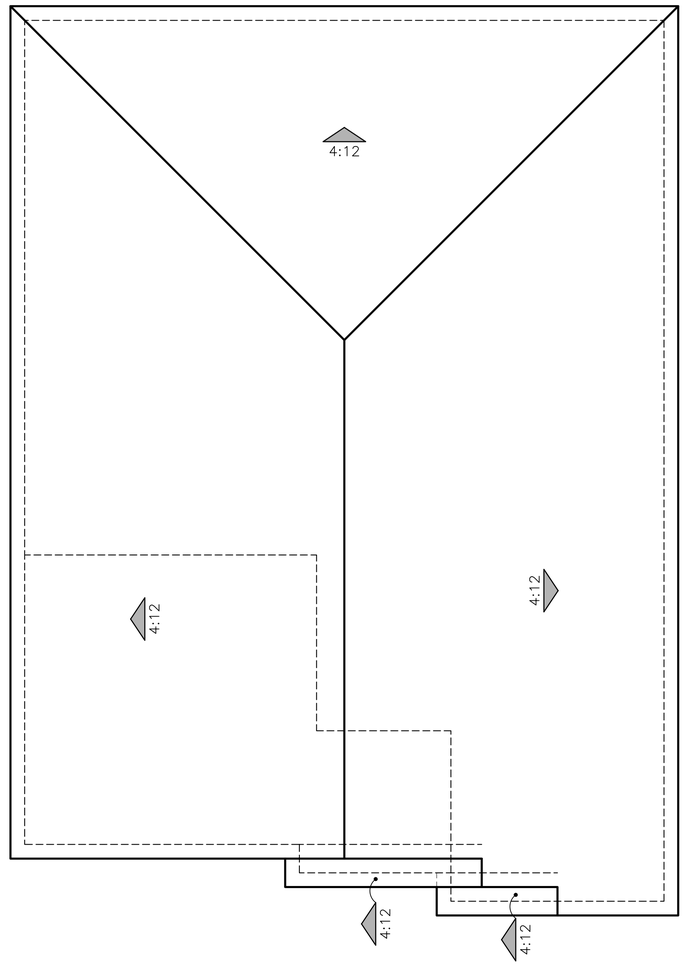
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"A" - SPANISH




"B" - SANTA BARBARA




"E" - FARMHOUSE

ROOF PLANS

PLAN 4516

0 2 4 8 12

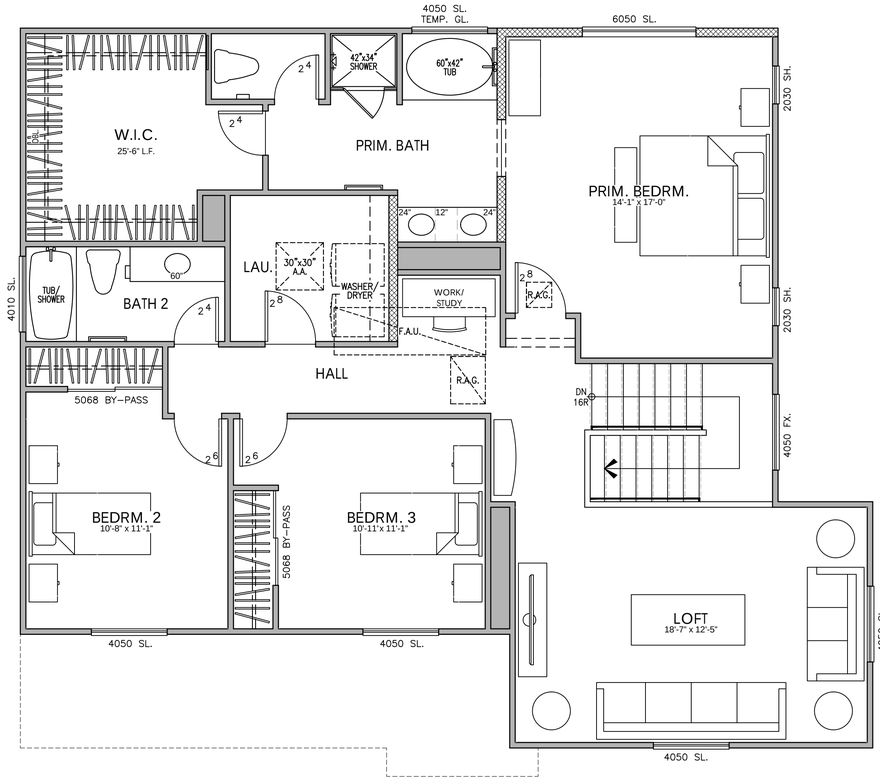
Meritage Homes

# SELLER'S AVENUE

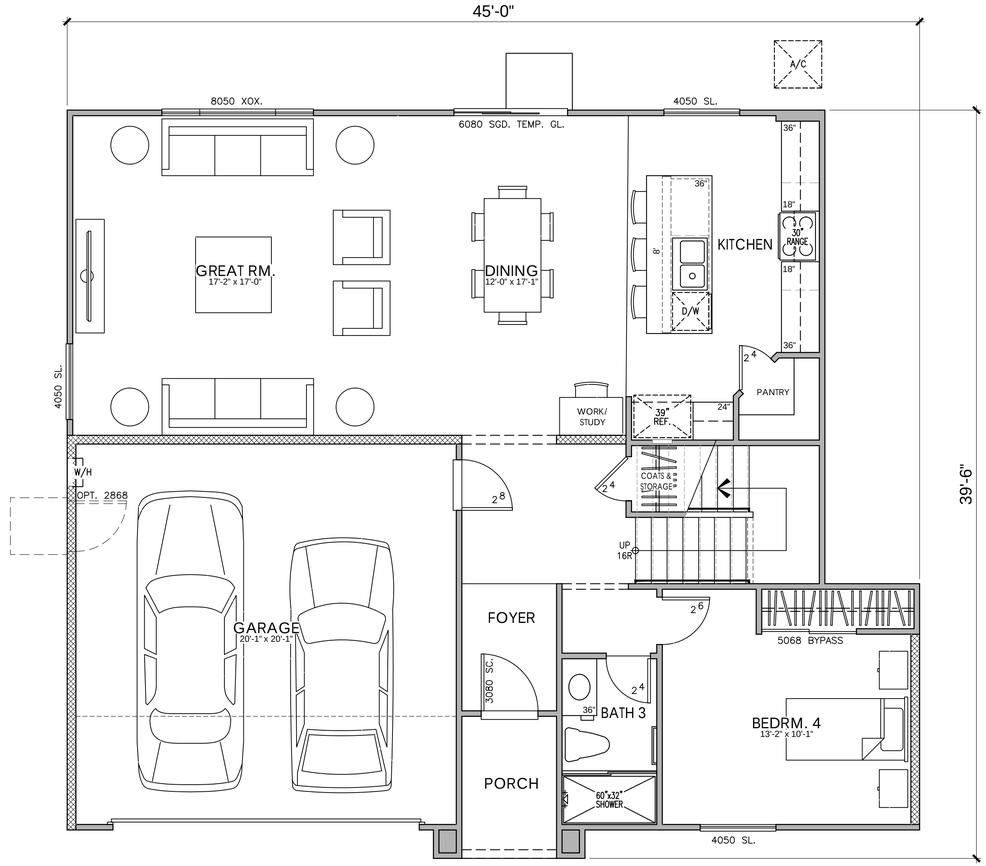
OAKLEY, CA

06/06/2023
A-11

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#21012




SECOND FLOOR PLAN




FIRST FLOOR PLAN

PLAN 4522
AREA TABULATION

| CONDITIONED SPACE | |
|---|---|
| FIRST FLOOR AREA | 1,135 SQ. FT. |
| SECOND FLOOR AREA | 1,358 SQ. FT. |
| TOTAL DWELLING | 2,493 SQ. FT. |
| **UNCONDITIONED SPACE** | |
| GARAGE | 420 SQ. FT. |
| PATIO | 38 SQ. FT. |

0 2 4 8 12

# PLAN 4522

4 BEDROOM, 3 BATH, LOFT

Meritage Homes

# SELLER'S AVENUE

OAKLEY, CA

06/06/2023
A-12

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#21012



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Refer to landscape drawings for wall, tree, and shrub locations

FRONT




RIGHT

## MATERIALS LEGEND
(WHERE OCCURS)

| | |
|---|---|
| FRONT DOOR: | FIBERGLASS |
| GARAGE DOOR: | METAL SECTIONAL |
| ROOF: | CONCRETE LOW PROFILE "S" TILE |
| FASCIA: | 2x6 WOOD |
| BARGE: | 2x6 WOOD |
| WALL: | STUCCO |
| WINDOWS: | VINYL W/ GRIDS |
| SHUTTERS: | SIMULATED WOOD |
| TRIM: | STUCCO OVER FOAM |




REAR




LEFT

COLOR SCHEME 18

# PLAN 4522 "A"
## SPANISH ELEVATIONS

0 2 4 8 12

Meritage Homes

# SELLER'S AVENUE
OAKLEY, CA

06/06/2023
A-13

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Refer to landscape drawings for wall, tree, and shrub locations

FRONT




RIGHT

## MATERIALS LEGEND
(WHERE OCCURS)

| | |
|---|---|
| FRONT DOOR: | FIBERGLASS |
| GARAGE DOOR: | METAL SECTIONAL |
| ROOF: | CONCRETE LOW PROFILE "S" TILE |
| FASCIA: | 2x6 WOOD |
| BARGE: | 2x6 WOOD |
| GABLE END: | SIMULATED CLAY TILE |
| WALL: | STUCCO |
| WINDOWS: | VINYL W/ GRIDS |
| SHUTTERS: | SIMULATED WOOD |
| TRIM: | STUCCO OVER FOAM |




REAR




LEFT

COLOR SCHEME 21

# PLAN 4522 "B"

## SANTA BARBARA ELEVATIONS

0 2 4 8 12

Meritage Homes

# SELLER'S AVENUE

OAKLEY, CA

06/06/2023
A-14

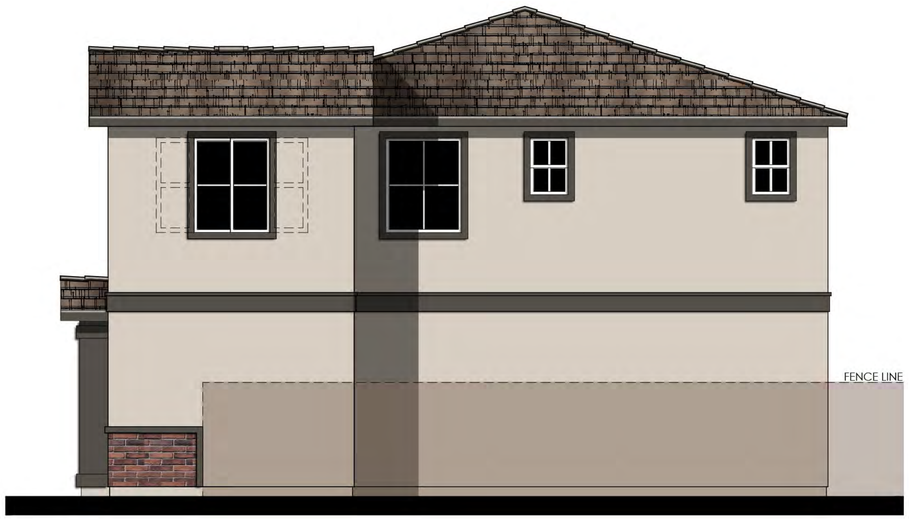
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Refer to landscape drawings for wall, tree, and shrub locations

FRONT




RIGHT

## MATERIALS LEGEND
(WHERE OCCURS)

| | |
|---|---|
| FRONT DOOR: | FIBERGLASS |
| GARAGE DOOR: | METAL SECTIONAL W/ WINDOWS |
| ROOF: | CONCRETE FLAT TILE |
| FASCIA: | 2x6 WOOD |
| BARGE: | 2x6 WOOD |
| GABLE: | CEMENTITIOUS BOARD AND BATTEN W/ DECORATIVE GABLE END VENTS |
| WALL: | STUCCO |
| WINDOWS: | VINYL W/ GRIDS |
| SHUTTERS: | SIMULATED WOOD |
| TRIM: | STUCCO OVER RIGID FOAM |
| VENEER: | MANUFACTURED BRICK |




REAR




LEFT

COLOR SCHEME 30

# PLAN 4522 "E"
## FARMHOUSE ELEVATIONS

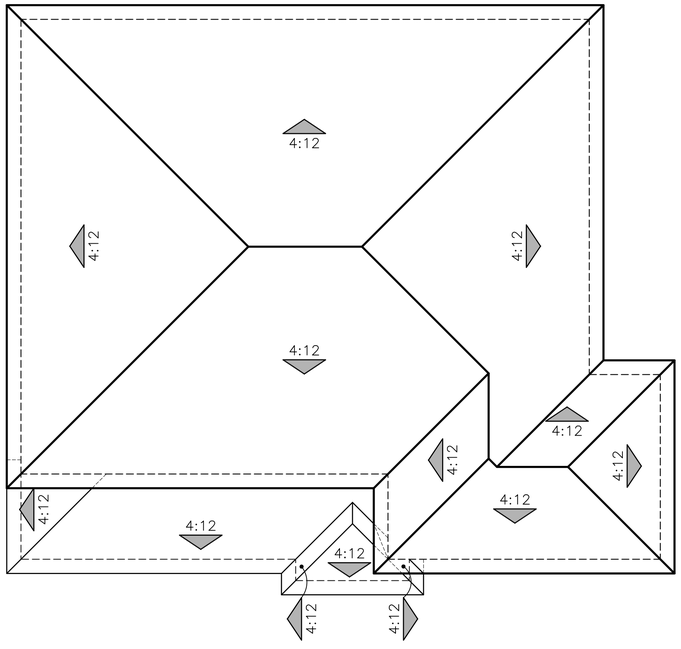
0 2 4 8 12

Meritage Homes

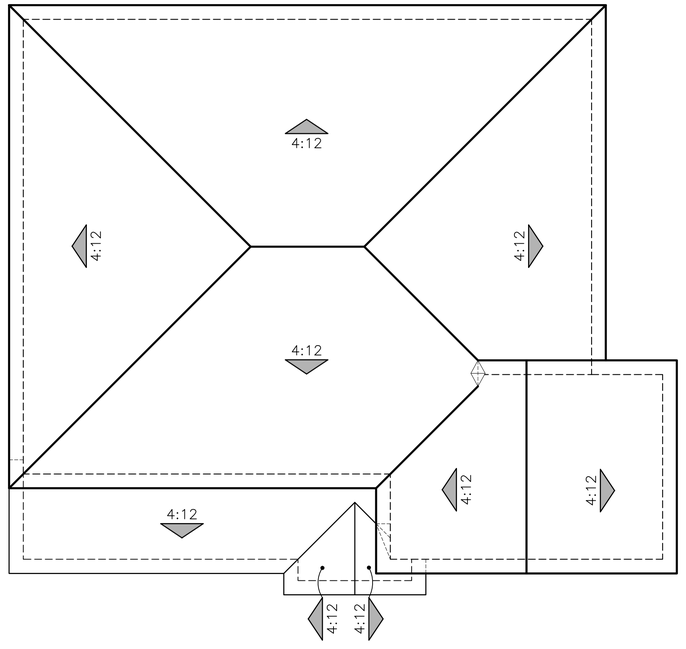
# SELLER'S AVENUE
OAKLEY, CA

06/06/2023
A-15

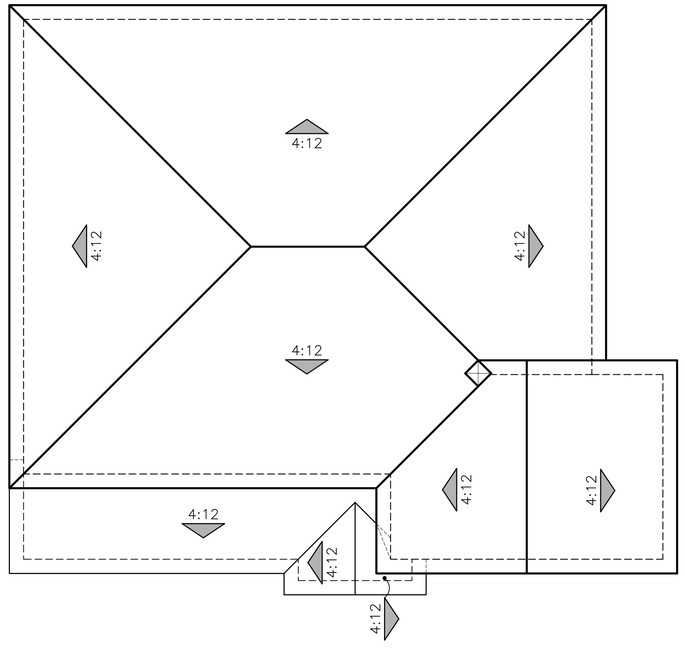
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#21012




"A" - SPANISH




"B" - SANTA BARBARA




"E" - FARMHOUSE

ROOF PLANS

PLAN 4522

0 2 4 8 12

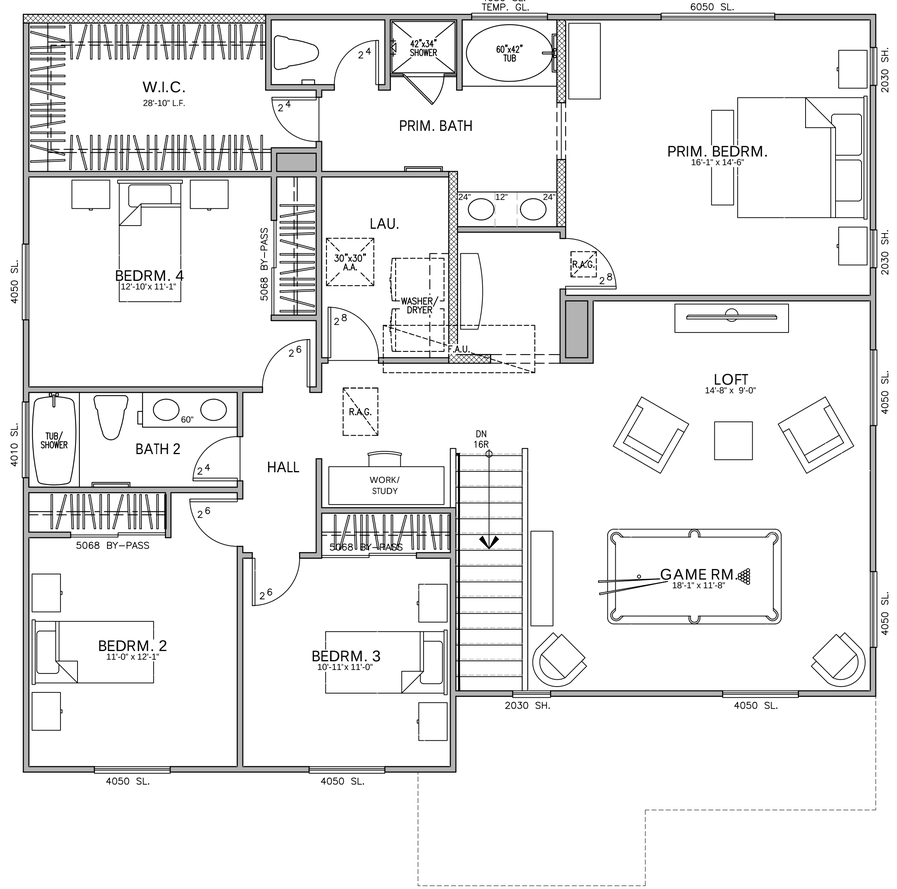
Meritage Homes

# SELLER'S AVENUE

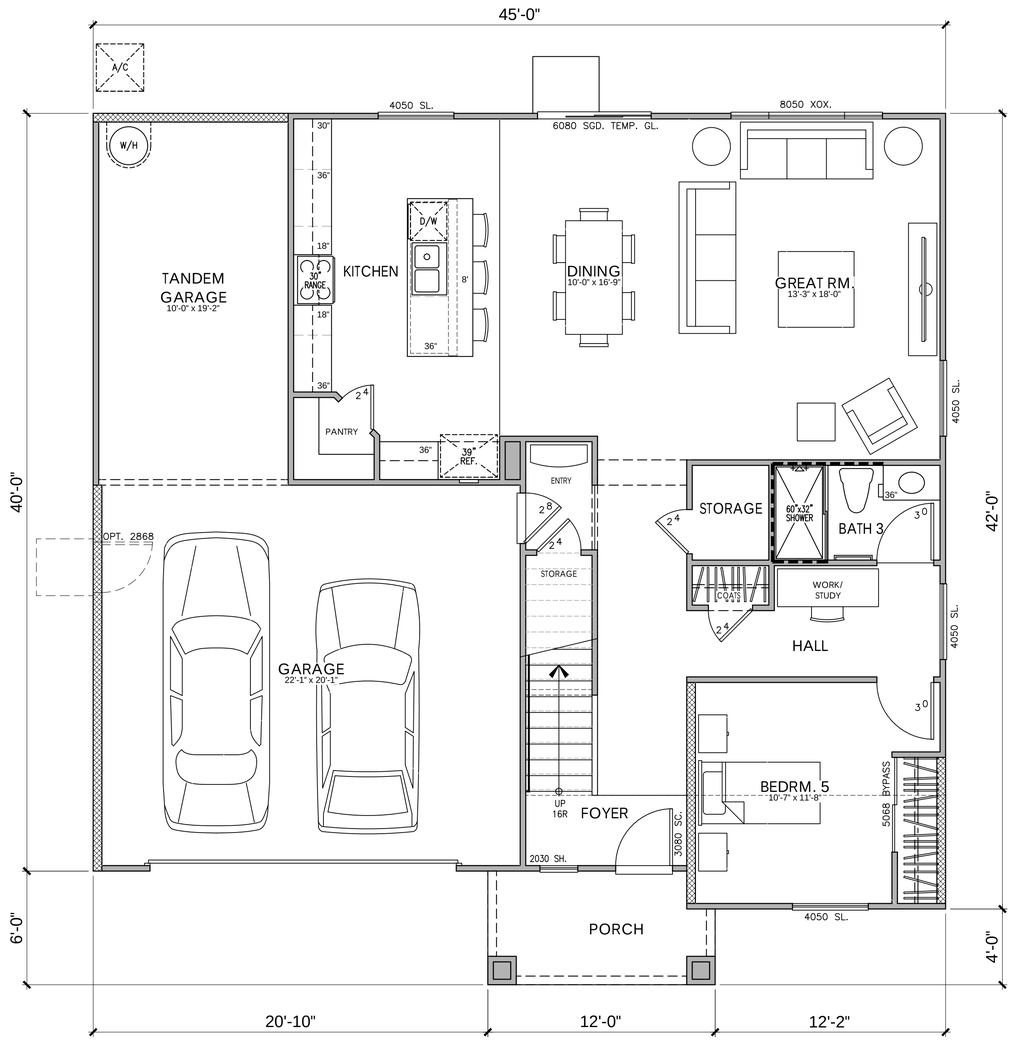
OAKLEY, CA

06/06/2023
A-16

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#21012




SECOND FLOOR PLAN




FIRST FLOOR PLAN

PLAN 4524
AREA TABULATION

| | |
|---|---|
| **CONDITIONED SPACE** | |
| FIRST FLOOR AREA | 1,166 SQ. FT. |
| SECOND FLOOR AREA | 1,667 SQ. FT. |
| TOTAL DWELLING | 2,833 SQ. FT. |
| **UNCONDITIONED SPACE** | |
| GARAGE | 661 SQ. FT. |
| PATIO | 37 SQ. FT. |

# PLAN 4524

5 BEDROOM, 3 BATH, LOFT, GAME ROOM

0 2 4 8 12

Meritage Homes

# SELLER'S AVENUE

OAKLEY, CA

06/06/2023
A-17

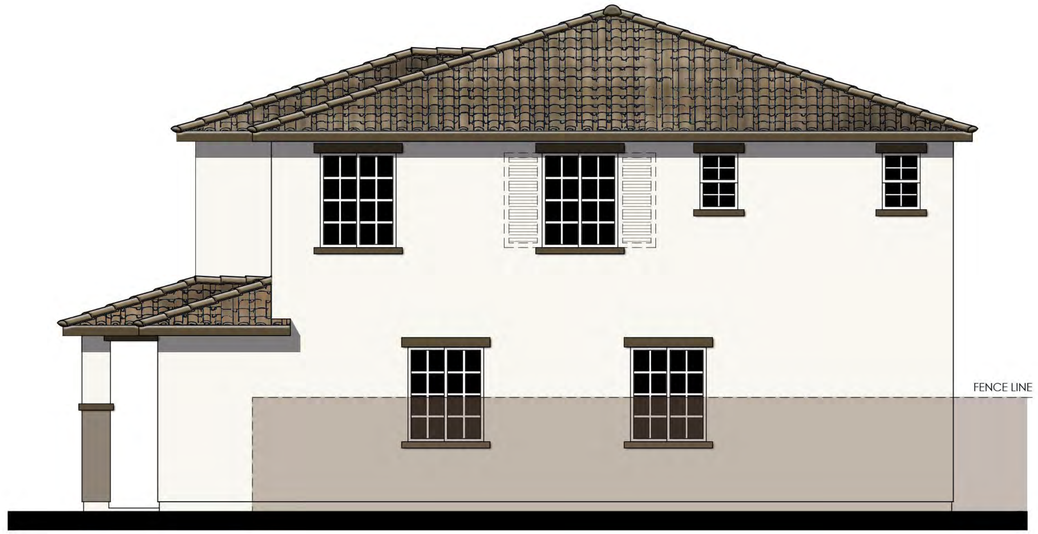
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Refer to landscape drawings for wall, tree, and shrub locations

FRONT



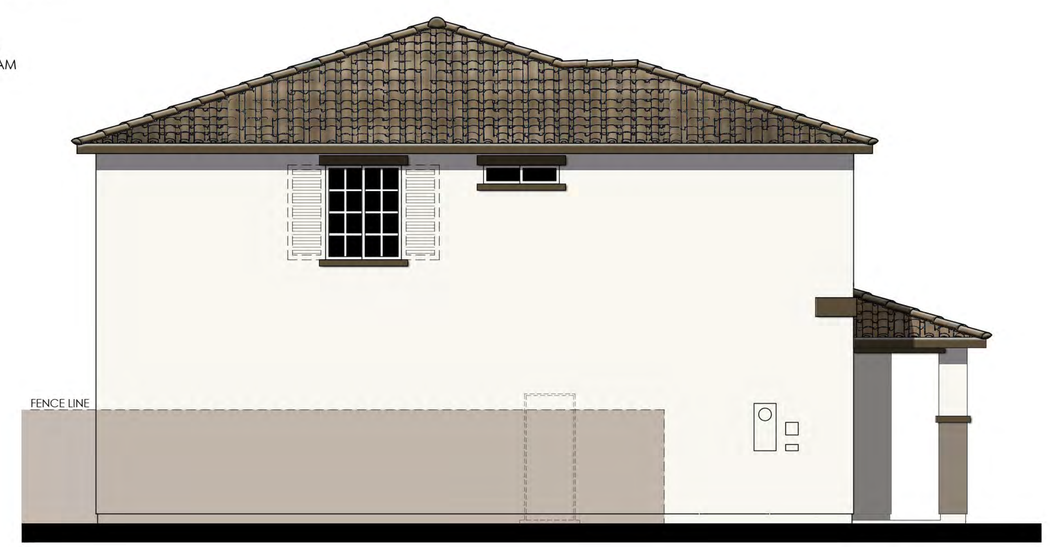

RIGHT

## MATERIALS LEGEND
(WHERE OCCURS)

| | |
|---|---|
| FRONT DOOR: | FIBERGLASS |
| GARAGE DOOR: | METAL SECTIONAL |
| ROOF: | CONCRETE LOW PROFILE "S" TILE |
| FASCIA: | 2x6 WOOD |
| BARGE: | 2x6 WOOD |
| WALL: | STUCCO |
| WINDOWS: | VINYL W/ GRIDS |
| SHUTTERS: | SIMULATED WOOD |
| TRIM: | STUCCO OVER FOAM |




REAR




LEFT

COLOR SCHEME 17

# PLAN 4524 "A"
## SPANISH ELEVATIONS

0 2 4 8 12

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# SELLER'S AVENUE
OAKLEY, CA

06/06/2023
A-18

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Refer to landscape drawings for wall, tree, and shrub locations

FRONT




RIGHT

## MATERIALS LEGEND
(WHERE OCCURS)

| | |
|---|---|
| FRONT DOOR: | FIBERGLASS |
| GARAGE DOOR: | METAL SECTIONAL |
| ROOF: | CONCRETE LOW PROFILE "S" TILE |
| FASCIA: | 2x6 WOOD |
| BARGE: | 2x6 WOOD |
| GABLE END: | SIMULATED CLAY TILE |
| WALL: | STUCCO |
| WINDOWS: | VINYL W/ GRIDS |
| SHUTTERS: | SIMULATED WOOD |
| TRIM: | STUCCO OVER FOAM |




REAR




LEFT

COLOR SCHEME 20

# PLAN 4524 "B"

SANTA BARBARA ELEVATIONS

0 2 4 8 12

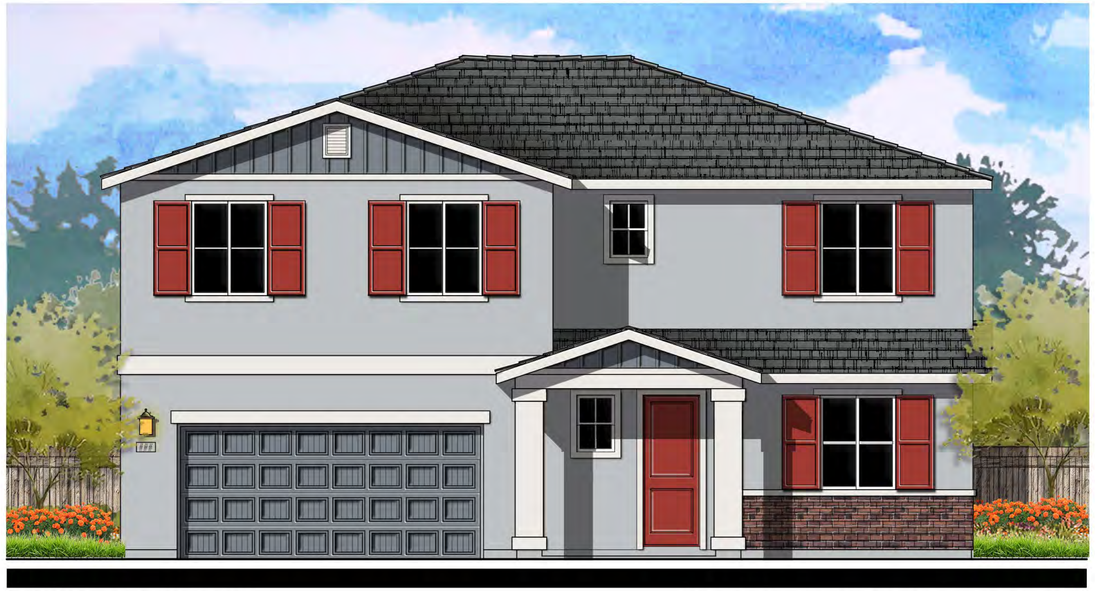
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# SELLER'S AVENUE

OAKLEY, CA

06/06/2023
A-19

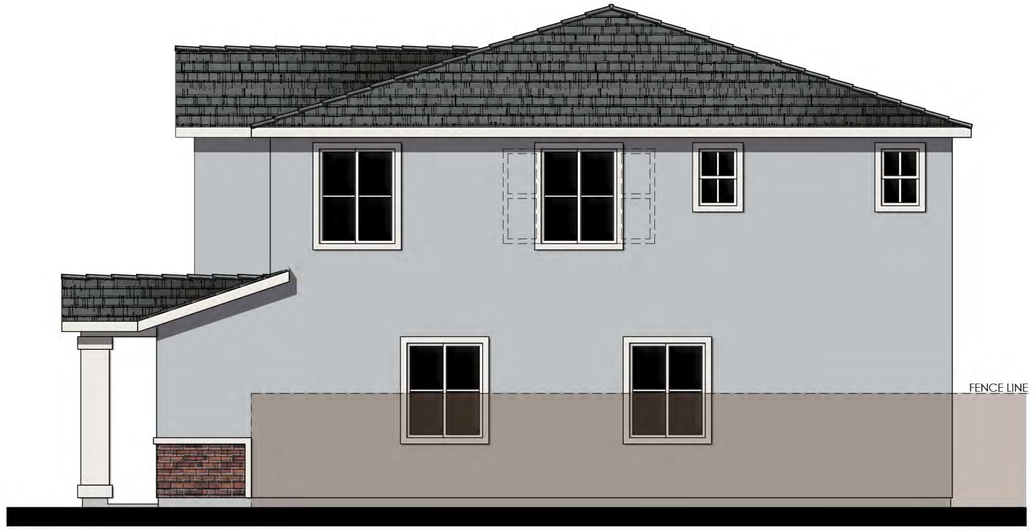
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Refer to landscape drawings for wall, tree, and shrub locations

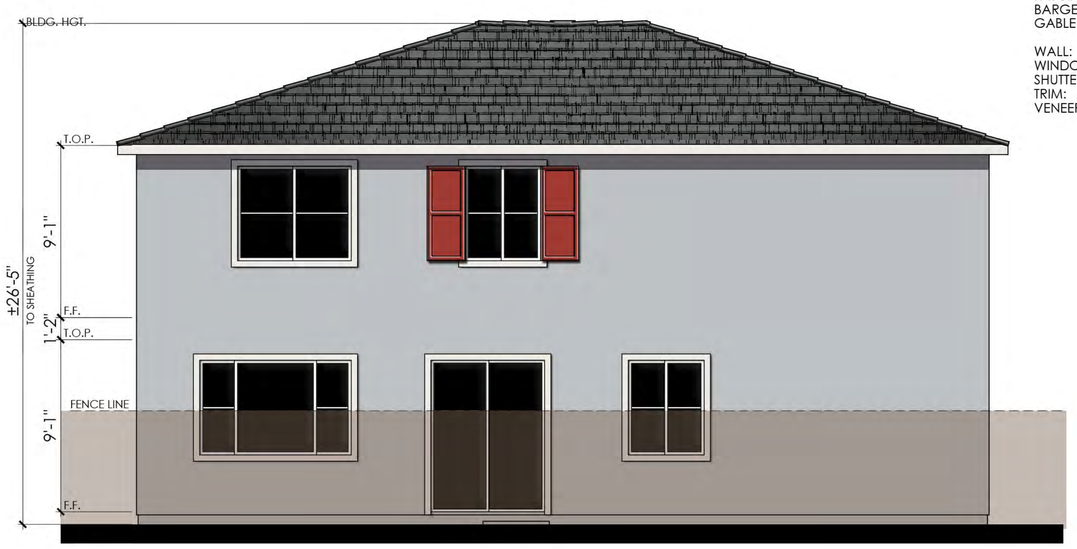
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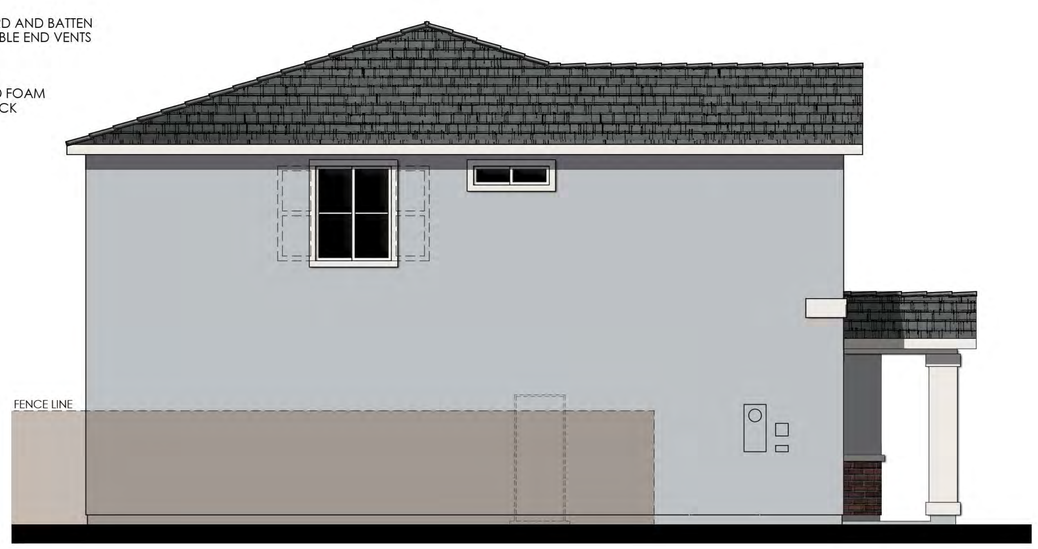

RIGHT

## MATERIALS LEGEND
(WHERE OCCURS)

| | |
|---|---|
| FRONT DOOR: | FIBERGLASS |
| GARAGE DOOR: | METAL SECTIONAL W/ WINDOWS |
| ROOF: | CONCRETE FLAT TILE |
| FASCIA: | 2x6 WOOD |
| BARGE: | 2x6 WOOD |
| GABLE: | CEMENTITIOUS BOARD AND BATTEN W/ DECORATIVE GABLE END VENTS |
| WALL: | STUCCO |
| WINDOWS: | VINYL W/ GRIDS |
| SHUTTERS: | SIMULATED WOOD |
| TRIM: | STUCCO OVER RIGID FOAM |
| VENEER: | MANUFACTURED BRICK |




REAR




LEFT

COLOR SCHEME 29

# PLAN 4524 "E"

## FARMHOUSE ELEVATIONS

0 2 4 8 12

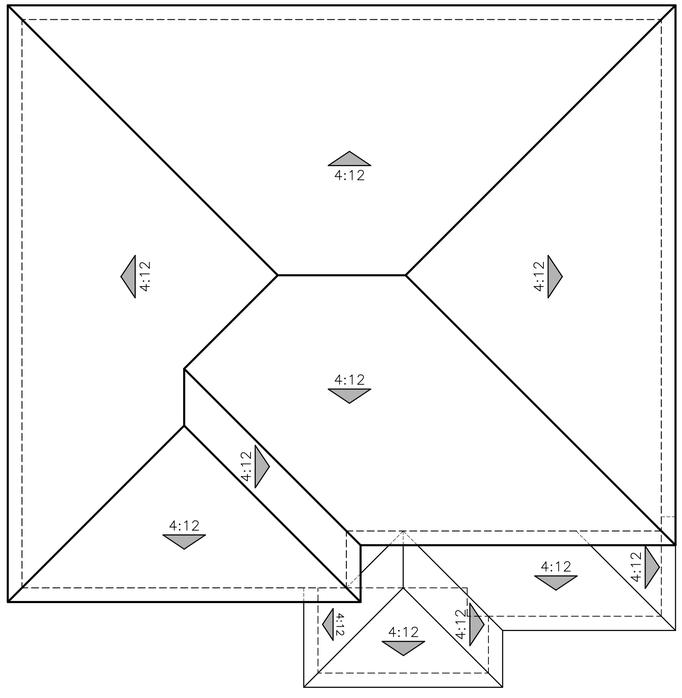
Meritage Homes

# SELLER'S AVENUE

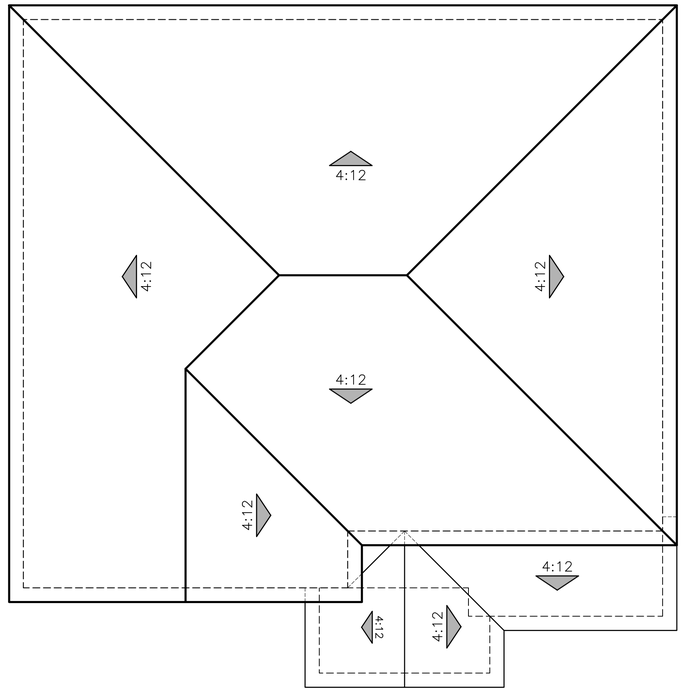
OAKLEY, CA

06/06/2023
A-20

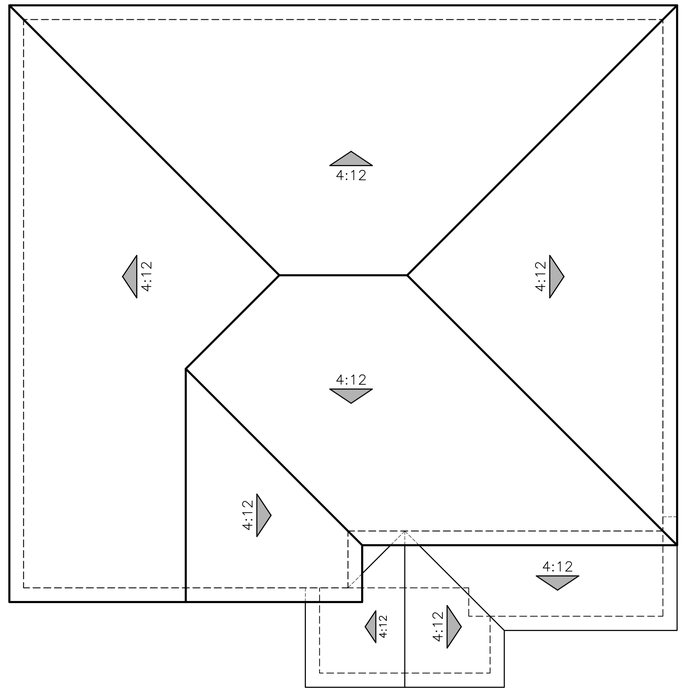
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"A" - SPANISH




"B" - SANTA BARBARA




"E" - FARMHOUSE

ROOF PLANS

PLAN 4524

0 2 4 8 12

Meritage Homes

# SELLER'S AVENUE

OAKLEY, CA

06/06/2023
A-21

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# SELLER'S AVENUE

OAKLEY, CA

JOB # 21012

CREATED 10/3/2022

| "A" ELEVATIONS SPANISH | SCHEME 16 | SCHEME 17 | SCHEME 18 |
|---|---|---|---|
| PRIMARY STUCCO | SW7052 GRAY AREA | SW7005 PURE WHITE | SW6101 SANDS OF TIME |
| SECONDARY STUCCO | SW7046 ANONYMOUS | SW7504 KEYSTONE GRAY | SW6082 COBBLE BROWN |
| FASCIA / TRIM / GARAGE DOOR | SW7020 BLACK FOX | SW7034 STATUS BRONZE | SW6083 SABLE |
| FRONT DOOR / SHUTTERS | SW6061 TANBARK | SW7605 GALE FORCE | SW7580 CARNELIAN |
| EAGLE ROOF: LOW PROF "S" MALIBU | 2773 WALNUT CREEK BLD | 2530 WEATHERED ADOBE | 2636 PIEDMONT BLEND |
| WESTLAKE ROOF: LOW PROF. "S" VILLA | 1VICS6330 SALERNO CLAY | 1VICS0024 DESERT SAGE | 1VICS6464 CA MISSION BLEND |

| | |
|---|---|
| **STUCCO:** | OMEGA |
| **PAINT:** | SHERWIN WILLIAMS |
| **ROOF:** | EAGLE |
| **ROOF:** | WESTLAKE |
| **VENEER:** | ELDORADO |

| "B" ELEVATIONS SANTA BARBARA | SCHEME 19 | SCHEME 20 | SCHEME 21 |
|---|---|---|---|
| STUCCO | SW7558 MEDICI IVORY | SW7688 SUNDEW | SW6071 POPULAR GRAY |
| FASCIA / TRIM | SW9091 HALF-CAFF | SW9115 COWBOY BOOTS | SW7041 VAN DYKE BROWN |
| GARAGE DOOR | SW6068 BREVITY BROWN | SW2843 ROYCROFT BRASS | SW7040 SMOKEHOUSE |
| FRONT DOOR / SHUTTERS | SW2837 AURORA BROWN | SW0065 VOGUE GREEN | SW7076 CYBERSPACE |
| GABLE END DETAIL | SW6061 TANBARK | SW6061 TANBARK | SW6061 TANBARK |
| EAGLE ROOF: LOW PROF "S" MALIBU | 2636 PIEDMONT BLEND | 2702 CALABAR BLEND | 2689 BROWN RANGE |
| WESTLAKE ROOF: LOW PROF. "S" VILLA | 1VICS7330 VERONA CLAY | 1VICS6169 CASA GRANDE BLD | 1VICS3233 BROWN BLEND |

| "E" ELEVATIONS FARMHOUSE | SCHEME 28 | SCHEME 29 | SCHEME 30 |
|---|---|---|---|
| STUCCO | SW7005 PURE WHITE | SW6254 LAZY GRAY | SW7632 MODERN GRAY |
| FASCIA / TRIM | SW7069 IRON ORE | SW7004 SNOWBOUND | SW7048 URBANE BRONZE |
| BOARD & BATTEN SIDING / GARAGE DR | SW7005 PURE WHITE | SW6256 SERIOUS GRAY | SW6074 SPALDING GRAY |
| FRONT DOOR / SHUTTERS | SW7069 IRON ORE | SW6608 RAVE RED | SW7625 MOUNT ETNA |
| BRICK: TUNDRA | ASHLAND | HARTFORD | HARTFORD |
| EAGLE ROOF: SHAKE PONDEROSA | SCP8805 SEATTLE BLEND | 5699 CHARCOAL RANGE | 5702 CALABAR BLEND |
| WESTLAKE ROOF: FLAT SHAKE | 1FBCJ4072 SAHARA QTZ BLD | 1FBCJ1430 CHARCOAL BLEND | 1FBCJ3181 SMOKEY TOPAZ BLD |

Meritage Homes

Kevin L. Crook Architect Inc

PLANNING + ARCHITECTURE

ALL FLASHING, GUTTERS, DOWNSPOUTS ETC. TO BE PAINTED TO **MATCH** ADJACENT SURFACE. ALL PAINT BREAKS TO BE CUT AT INSIDE CORNERS.

TODAS LAS TAPAJUNTAS, CAñALERAS, CAñALONES, ETC.SERAN PINTADOS PARA **IGUALAR** A LA SUPERFICIE DE JUNTO

TODAS LAS RESTAURAS DE PINTURA SE CORTARAN EN LAS ESQUINAS INTERIORES

## WRITTEN COLOR SCHEMES

## SPANISH
### SCHEME #16




Meritage Homes

SELLER'S AVENUE
OAKLEY, CA

#21012
OCT. 3, 2022

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## SPANISH
### SCHEME #17




Meritage Homes

SELLER'S AVENUE
OAKLEY, CA

#21012
OCT. 3, 2022

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## SPANISH
### SCHEME #18




Meritage Homes

SELLER'S AVENUE
OAKLEY, CA

#21012
OCT. 3, 2022

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COLOR BOARDS - SPANISH

*COLORS MAY VARY DUE TO SCREEN AND PRINTER CALIBRATION. REFER TO PAINT CHIPS AND MATERIAL BOARDS FOR ACTUAL COLORS.

## SANTA BARBARA
SCHEME #19



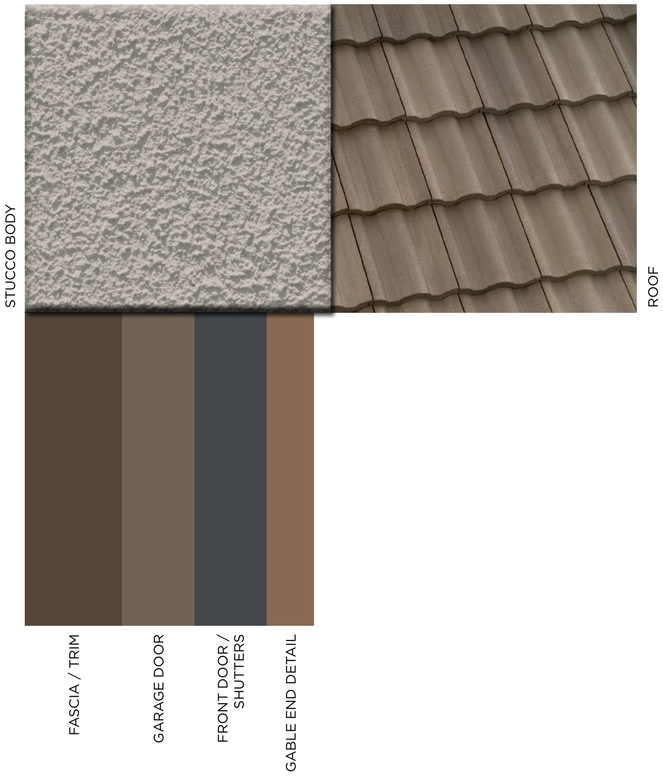

SELLER'S AVENUE
OAKLEY, CA
#21012
OCT. 3, 2022
Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

## SANTA BARBARA
SCHEME #20




SELLER'S AVENUE
OAKLEY, CA
#21012
OCT. 3, 2022
Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

## SANTA BARBARA
SCHEME #21




SELLER'S AVENUE
OAKLEY, CA
#21012
OCT. 3, 2022
Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

COLOR BOARDS - SANTA BARBARA

*COLORS MAY VARY DUE TO SCREEN AND PRINTER CALIBRATION. REFER TO PAINT CHIPS AND MATERIAL BOARDS FOR ACTUAL COLORS.

## FARMHOUSE
SCHEME #28




SELLER'S AVENUE
OAKLEY, CA

#21012
OCT. 3, 2022

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

## FARMHOUSE
SCHEME #29




SELLER'S AVENUE
OAKLEY, CA

#21012
OCT. 3, 2022

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

## FARMHOUSE
SCHEME #30




SELLER'S AVENUE
OAKLEY, CA

#21012
OCT. 3, 2022

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

COLOR BOARDS - FARMHOUSE

*COLORS MAY VARY DUE TO SCREEN AND PRINTER CALIBRATION. REFER TO PAINT CHIPS AND MATERIAL BOARDS FOR ACTUAL COLORS.

2022-00446
**FILED**
**November 3, 2022**
DEBORAH COOPER
CLERK-RECORDER
By MB
Deputy clerk

OAKLEY
CALIFORNIA

## California Environmental Quality Act (CEQA)

### NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

**Project Title:** Sellers Avenue Subdivision (RZ 01-22, TM 01-22, FDP 01-22, DR 01-22)

**Lead Agency Name and Address:**
City of Oakley
3231 Main Street
Oakley, CA 94561

**Contact Person and Phone Number:**
Ken Strelo, Planning Manager
strelo@ci.oakley.ca.us
(925) 625-7000

**Project Location:**
5911 Sellers Ave
Oakley, CA 94561
Accessor's Parcel Numbers (APNs): 033-150-013-2

**Project Sponsor's Name and Address:** (Applicant)
MLC Holdings
2603 Camino Ramon, Ste. 140
San Ramon, CA, 94583
(925) 324-6178

**Existing General Plan:** Residential Low (RL)

**Existing Zoning:** Planned Unit Development (P-1)

**Project Description Summary:**

The approximately 20.42-acre project site, identified by APN 033-150-013-2, is located at 5911 Sellers Avenue in the City of Oakley, California. The site predominantly consists of undeveloped ruderal grassland with the exception of one farmhouse and two ancillary buildings in the northern portion of the site. Seven trees exist on-site. Surrounding existing land uses include scattered rural residences with small-scale agricultural uses to the north, south, and east. The project site is bound by the Burlington Northern and Santa Fe Railway Company (BNSF) railroad tracks to the west. Single-family residences are located further

west, beyond the BNSF railroad tracks. The City of Oakley General Plan designates the project site as Residential Low (RL) and the site is zoned Planned Unit Development (P-1). Development of the Sellers Avenue Subdivision (proposed project) would include the demolition of the existing on-site structures, as well as the subdivision of the project site into 77 single-family residential lots, Parcel A, and Parcel B. The project would also include the development of a retention basin and tot lot/picnic area in the northwest corner of the project site, and the off-site, northerly extension of water and sewer lines. The project would require approval of a Rezone to amend an existing P-1 District (RZ 01-22), a Final Development Plan (FDP 01-22), a Vesting Tentative Map (VTM) (TM 01-22), as well as a Design Review (DR 01-22).

**Declaration:**

On November 3, 2022, the City of Oakley Planning Division determined that the above project will have no significant effect on the environment and is therefore exempt from the requirement of an Environmental Impact Report. The determination is based on the following findings:

a) The project will not have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.
b) It will not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.
c) It will not have significant impacts, which are individually limited, but cumulatively considerable.
d) It will not have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly.
e) No substantial evidence exists that the project will have a significant negative adverse effect on the environment.
f) The proposed project is not on any of the lists enumerated under Section 65962.5 of the Government Code as related to hazardous materials.

The Initial Study/Mitigated Negative Declaration is available for review at https://www.ci.oakley.ca.us/ceqa-documents/. Written comments must be submitted no later than 5:00 PM on December 5, 2022. Appeal of this determination must be made during the 30-day posting period. Notice is further given that the City of Oakley will hold public hearings to discuss the project and provide an opportunity for public comment on the Mitigated Negative Declaration and project approvals. Subsequent notices will be published which will identify the date, time, and location of public hearings.

**Submit comments to:**
City of Oakley
Attn: Ken Strelo, Planning Manager
3231 Main Street
Oakley, CA 94561

**Posting period: November 3, 2022 – December 5, 2022**

Initial Study Prepared By: _____
Ken Strelo, Planning Manager

State of California - Department of Fish and Wildlife

# 2022 ENVIRONMENTAL DOCUMENT FILING FEE CASH RECEIPT

DFW 753.5a (REV. 01/01/22) Previously DFG 753.5a

Print | StartOver | Finalize&Email

RECEIPT NUMBER:
07-11/03/2022-449

STATE CLEARINGHOUSE NUMBER *(If applicable)*

**SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.**

| LEAD AGENCY | LEADAGENCY EMAIL | DATE |
|---|---|---|
| CITY OF OAKLEY | strelo@ci.oakley.ca.us | 11/03/2022 |
| **COUNTY/STATE AGENCY OF FILING** | | **DOCUMENT NUMBER** |
| CONTRA COSTA COUNTY | | 2022-00446 |

PROJECT TITLE

SELLERS AVENUE SUBDIVISION ( RZ01-22 TM 01-22 FDP 01-22 DR 01-22)

| PROJECT APPLICANT NAME | PROJECT APPLICANT EMAIL | | PHONE NUMBER |
|---|---|---|---|
| MLC HOLDINGS | | | (925) 324-6178 |
| **PROJECT APPLICANT ADDRESS** | **CITY** | **STATE** | **ZIP CODE** |
| 2603 CAMINO RAMON STE 140 | SAN RAMON | CA | 94583 |

**PROJECT APPLICANT** *(Check appropriate box)*

☐ Local Public Agency ☐ School District ☐ Other Special District ☐ State Agency ☒ Private Entity

**CHECK APPLICABLE FEES:**

| | | |
|---|---|---|
| ☐ Environmental Impact Report (EIR) | $ 3,539.25 | $ |
| ☐ Mitigated/Negative Declaration (MND)(ND) | $ 2,548.00 | $ |
| ☐ Certified Regulatory Program (CRP) document - payment due directly to CDFW | $ 1,203.25 | $ |
| ☐ Exempt from fee | | |
| ☐ Notice of Exemption (attach) | | |
| ☐ CDFW No Effect Determination (attach) | | |
| ☐ Fee previously paid (attach previously issued cash receipt copy) | | |
| ☐ Water Right Application or Petition Fee (State Water Resources Control Board only) | $ 850.00 | $ |
| ☐ County documentary handling fee | $ 50.00 | $ |
| ☒ Other NOTICE OF INTENT | | $ |

**PAYMENT METHOD:**

☐ Cash ☐ Credit ☐ Check ☐ Other **TOTAL RECEIVED** $ 0.00

| SIGNATURE | AGENCY OF FILING PRINTED NAME AND TITLE |
|---|---|
| X MB | Barajas Myrna Deputy Clerk |

132758

ORIGINAL - PROJECT APPLICANT | COPY - CDFW/ASB | COPY - LEAD AGENCY | COPY - COUNTY CLERK | DFW 753.5a (Rev. 01012022)

Deborah Cooper
Contra Costa County
Clerk-Recorder
555 Escobar Street
Martinez, CA 94553
(925) 335-7900

Public

Receipt No.: 202200132758

Cashier: 201

Register: WINDOW8

Date/Time: 11/03/2022 11:33 AM

| Description | Fee |
|---|---|
| NOTICE OF INTENT | |
| Filing Time: | 11:33 AM |
| Filing Total: | No Fee |
| Filing Fee: | No Fee |

Total Amount Due:

Total Paid

Amount Due: $0.00

THANK YOU
PLEASE KEEP FOR REFERENCE



City of Oakley
Planning Division

# Sellers Avenue Subdivision

# Initial Study/Mitigated Negative Declaration

**November 2022**

**Prepared by**

RANEY PLANNING & MANAGEMENT, INC. 20 years
1501 Sports Drive, Suite A, • Sacramento • CA • 95834
Office 916.372.6100 • Fax 916.419.6108

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**Appendix A – Air Quality and Greenhouse Gas Emissions – CalEEMod Results**
**Appendix B – Planning Survey Report**
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**Appendix D – Traffic Impact Analysis**

# INITIAL STUDY

## A. PROJECT SUMMARY

1. Project Title: Sellers Avenue Subdivision (RZ 01-22, TM 01-22, FDP 01-22, DR 01-22)

2. Lead Agency Name and Address:
City of Oakley
Planning Division
3231 Main Street
Oakley, CA 94561

3. Contact Person and Phone Number:
Ken Strelo
Planning Manager
(925) 625-7000

4. Project Location:
5911 Sellers Ave
Oakley, CA 94561
Accessor's Parcel Numbers (APNs): 033-150-013-2

5. Project Applicant Name and Address:
Paul Manyisha
MLC Holdings
2603 Camino Ramon, Ste. 140
San Ramon, CA, 94583

6. General Plan Designation: Residential Low (RL)

7. Zoning Designation: Planned Unit Development (P-1)

8. Required Approvals from Other Public Agencies: None

9. Surrounding Land Uses and Setting:

The approximately 20.42-acre project site, identified by APN 033-150-013-2, is located at 5911 Sellers Avenue in the City of Oakley, California. The site predominantly consists of undeveloped ruderal grassland with the exception of one farmhouse and two ancillary buildings in the northern portion of the site. Seven trees exist on-site. Surrounding existing land uses include scattered rural residences with small-scale agricultural uses to the north, south, and east. The project site is bound by the Burlington Northern and Santa Fe Railway Company (BNSF) railroad tracks to the west. Single-family residences are located further west, beyond the BNSF railroad tracks. The City of Oakley General Plan designates the project site as Residential Low (RL) and the site is zoned Planned Unit Development (P-1).

10. Project Description Summary:

Development of the Sellers Avenue Subdivision (proposed project) would include the demolition of the existing on-site structures, as well as the subdivision of the project site

into 77 single-family residential lots, Parcel A, and Parcel B. The project would also include the development of a retention basin and tot lot/picnic area in the northwest corner of the project site, and the off-site, northerly extension of water and sewer lines. The project would require approval of a Rezone to amend an existing P-1 District (RZ 01-22), a Final Development Plan (FDP 01-22), a Vesting Tentative Map (VTM) (TM 01-22), as well as a Design Review (DR 01-22).

12. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1:

    In compliance with Assembly Bill (AB) 52 (Public Resources Code [PRC] Section 21080.3.1), a project notification letter was distributed to the chairpersons of the following tribes on June 21, 2022: Amah Mutsun Tribal Band of Mission San Juan Bautista, Chicken Ranch Rancheria of Me-Wuk Indians, Guidiville Indian Rancheria, Indian Canyon Mutsun Band of Costanoan, Muwekma Ohlone Indian Tribe of the SF Bay Area, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, North Valley Yokuts Tribe, Tule River Indian Tribe, The Ohlone Indian Tribe, Wilton Rancheria, and The Confederated Villages of Lisjan. The Confederated Villages of Lisjan responded with a request for additional information, and the Northern Valley Yokuts Tribe responded with a request to observe and participate in cultural resource studies. The Indian Canyon Mutsun Band of Costanoan Ohlone People responded with a request to consult on the project, and consultation is ongoing.

## B. SOURCES

All technical reports and modeling results prepared for the project analysis are available at: https://www.ci.oakley.ca.us/ceqa-documents/. The following documents are referenced information sources used for the purposes of this Initial Study/Mitigated Negative Declaration (IS/MND):

1. Antioch Unified School District. *Facilities Master Plan*. July 2018.
2. Association of Bay Area Governments. *Hazard Viewer.* Available at: https://abag.ca.gov/our-work/resilience/data-research/hazard-viewer/. Accessed May 2022.
3. ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* 2013.
4. Bay Area Air Quality Management District. *Air Quality Summary Reports*. Available at: http://www.baaqmd.gov/about-air-quality/air-quality-summaries. Accessed August 2022.
5. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.
6. Bay Area Air Quality Management District. *CEQA Thresholds and Guidelines Update.* Available at: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Accessed August 2022.
7. Bay Area Air Quality Management District. *CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans*. April 2022.
8. California Air Resources Board. *The 2017 Climate Change Scoping Plan Update.* January 20, 2017.
9. California Building Standards Commission. *California Green Building Standards Code*. 2019.
10. California Department of Conservation. *California Important Farmland Finder.* Available at: https://maps.conservation.ca.gov/dlrp/ciff/. Accessed May 2022.

11. California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. January 7, 2009.
12. California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary: Potrero Hill Landfill (48-AA-0075)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/3591. Accessed May 2022.
13. California Department of Transportation. *California State Scenic Highway System Map.* Available at: https://www.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed May 2022.
14. California Energy Commission. *Title 24 2019 Building Energy Efficiency Standards FAQ.* November 2018.
15. California Geologic Survey. *Seismic Hazard Zone Report for the Brentwood 7.5-Minute Quadrangle, Contra Costa County, California.* 2018.
16. City of Oakley. *City of Oakley 2020 General Plan Draft Environmental Impact Report*. September 2002.
17. City of Oakley. *City of Oakley General Plan*. Adopted January 11, 2022.
18. City of Oakley. *Mobility White Paper, City of Oakley Focused General Plan Update.* December 2021.
19. City of Oakley. *Strategic Energy Plan*. Fall 2015.
20. CityGate Associates. *Deployment Performance and Headquarters Staffing Adequacy Study, East Contra Costa Fire Protection District, California, Volume 1 Executive Summary*. June 15, 2016.
21. Contra Costa Conservation and Development. *2016 Agricultural Preserves Map.* Available at: https://www.contracosta.ca.gov/DocumentCenter/View/882/Map-of-Properties-Under-Contract. Accessed May 2022.
22. Contra Costa County Fire Protection District. *2018 Annual Report*. Available at: https://cccfpd.org/2018-annual-report/. Accessed September 2022.
23. Department of Toxic Substances Control. *Hazardous Waste and Substances Site List*. Available at: https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29. Accessed May 2022.
24. Diablo Water District. *2020 Facilities Plan*. June 2020.
25. Diablo Water District. *2020 Urban Water Management Plan.* May 2022.
26. East Contra Costa County Habitat Conservation Plan Association. *Final East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan.* October 2006.
27. Federal Emergency Management Agency. *Flood Insurance Rate Map 06013C0355G.* Effective May 18, 2022.
28. H.T. Harvey & Associates. *East Contra Costa County Habitat Conservation Plan – Assessment of Plan Effects on CEQA Species.* February 17, 2015.
29. Ironhouse Sanitary District. *Sewer System Management Plan*. April 2017.
30. Kenneth W. Strelo, Planning Manager, City of Oakley. Personal communication [email] with Rod Stinson, Vice President, Raney Planning and Management. September 6, 2022.
31. MLC Holdings, Inc. *DeJesus Property Preliminary Stormwater Control Plan.* December 2021.
32. Moore Biological Consultants. *Application Form and Planning Survey Report.* May 2022.
33. Solano Archaeological Services, LLC. *Cultural Resources Study – Sellers Avenue Development Project, City of Oakley, Contra Costa County, California.* December 14, 2021.

34. State Water Resources Control Board. *GeoTracker.* Available at: https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=oakley+california. Accessed May 2022.
35. TJKM. *Sellers Avenue Residential Development Traffic Impact Analysis.* August 1, 2022.
36. U.S. Census Bureau. *Quick Facts, City of Oakley, California.* Available at: https://www.census.gov/quickfacts/fact/table/oakleycitycalifornia/POP010220#POP010220. Accessed August 2022.
37. U.S. Fish and Wildlife Service. *National Wetlands Inventory.* Available at: https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/. Accessed August 2022.

## C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Less Than Significant with Mitigation Incorporated" or as indicated by the checklist on the following pages.

| | | |
|---|---|---|
| ☐ **Aesthetics** | ☐ **Agriculture and Forest Resources** | ☐ **Air Quality** |
| ☐ **Biological Resources** | ☒ **Cultural Resources** | ☐ **Energy** |
| ☒ **Geology and Soils** | ☒ **Greenhouse Gas Emissions** | ☒ **Hazards and Hazardous Materials** |
| ☐ **Hydrology and Water Quality** | ☐ **Land Use and Planning** | ☐ **Mineral Resources** |
| ☒ **Noise** | ☐ **Population and Housing** | ☐ **Public Services** |
| ☐ **Recreation** | ☒ **Transportation** | ☒ **Tribal Cultural Resources** |
| ☐ **Utilities and Service Systems** | ☐ **Wildfire** | ☒ **Mandatory Findings of Significance** |

## D. DETERMINATION

On the basis of this initial study:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

November 3, 2022
Date

Ken Strelo, Planning Manager
Printed Name

City of Oakley
For

## E. BACKGROUND AND INTRODUCTION

This IS/MND provides an environmental analysis pursuant to the California Environmental Quality Act (CEQA) for the proposed project. The applicant has submitted this application to the City of Oakley, which is the Lead Agency for the purposes of CEQA review. The IS/MND contains an analysis of the environmental effects of construction and operation of the proposed project.

In December 2002, the City of Oakley adopted the Oakley General Plan and the Oakley General Plan Environmental Impact Report (EIR). The General Plan EIR was a program-level EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations [CCR], Sections 15000 et seq.). The General Plan EIR analyzed full implementation of the Oakley General Plan and identified measures to mitigate the significant adverse project and cumulative impacts associated with the General Plan.

In January 2022, the City of Oakley adopted the Focused General Plan Update and the Focused General Plan Update Initial Study/Negative Declaration (IS/ND). The Focused General Plan Update IS/ND analyzed implementation of the Focused General Plan Update. The Focused General Plan Update amended the City's existing General Plan to bring it into compliance with State requirements related to environmental justice, mobility, and climate change and adaptation. The Focused General Plan Update also updated the setting information, and provided minor revisions to the goals, policies, and programs in the following elements: Land Use, Growth Management, Open Space and Conservation, Parks and Recreation, Noise, and Economic Development. All updates were applied to be consistent with current conditions, to remove policies and programs that have already been implemented or are no longer applicable, to update policies and programs to reflect current City practices, and to clarify the City's approach to achieving the vision and goals of the General Plan.

Pursuant to CEQA Guidelines Section 15150(a), the City of Oakley General Plan, Focused General Plan Update, General Plan EIR, and Focused General Plan Update IS/ND are incorporated by reference. The aforementioned documents are available online at:

- https://www.ci.oakley.ca.us/departments/planning-zoning/reference-documents/
- https://www.ci.oakley.ca.us/general-plan-update/

The impact discussions for each section of this IS/MND have been largely based on information in the Oakley General Plan, Focused General Plan Update, Oakley General Plan EIR, and Focused General Plan Update IS/ND, as well as technical studies prepared for the proposed project.

The mitigation measures prescribed for environmental effects described in this IS/MND would be implemented in conjunction with the project, as required by CEQA, and the mitigation measures would be incorporated into the project. In addition, a project Mitigation Monitoring and Reporting Program (MMRP) would be adopted in conjunction with approval of the project.

# F. PROJECT DESCRIPTION

The following section provides a comprehensive description of the proposed project in accordance with CEQA Guidelines, including the project location and setting, and project components.

## Project Location and Setting

The project site, further identified by APN 033-150-013-2, is located at 5911 Sellers Avenue in the City of Oakley, California (see Figure 1). The site consists of approximately 20.42 acres of predominantly undeveloped ruderal grassland. One farmhouse structure, two ancillary buildings, fencing, are found in the northern portion of the site, and seven trees exist on-site. The topography of the site is relatively flat.

Surrounding existing land uses include scattered rural residences with small-scale agricultural uses to the north, south, and east of the project site (see Figure 2). The BNSF railroad tracks serve as the western border of the project site. Single-family residences are located further west, beyond the BNSF railroad tracks. The project site is located approximately 3.52 miles east of State Route (SR) 4 and approximately 4.08 miles southeast of SR 160. The City of Oakley General Plan designates the project site RL and the site is zoned P-1.

## Project Components

The proposed project would include the demolition of the on-site structures, removal of seven on-site trees, and subdivision of the project site into 77 residential lots, an open space lot, and one lot dedicated for internal roadways. The project would also include the development of a retention basin and tot lot/picnic area in the northwest corner of the project site, and the off-site northerly extension of water and sewer lines within Sellers Avenue. The proposed project would require approval of a Rezone to amend the existing P-1 District, Final Development Plan (FDP 01-22), a VTM (TM 01-22), and Design Review (DR 01-22). The following sections describe the foregoing project components.

### Rezone/Final Development Plan

The proposed project would include a Rezone to amend the existing P-1 District and a Final Development Plan. The Rezone would allow lots under 6,000 square feet (sf). Preparation of a Final Development Plan is required for developments in the P-1 District pursuant to Municipal Code Section 9.1.1002.h.3.

### Vesting Tentative Map

The VTM would divide the project site into 77 single-family residential lots, Parcel A, and Parcel B (see Figure 3). The single-family lots would range in size from 5,400 sf to 10,237 sf. Parcel A would consist of the internal private circulation network, which would provide access to each lot. Parcel B, located in the western portion of the project site, would contain a tot-lot/picnic area, an open space area, and a retention basin. Sound walls would be installed along the eastern and western site boundaries.

Below is additional detail regarding the site access and circulation, landscaping, and utility infrastructure.

**Figure 1**
**Regional Project Location**

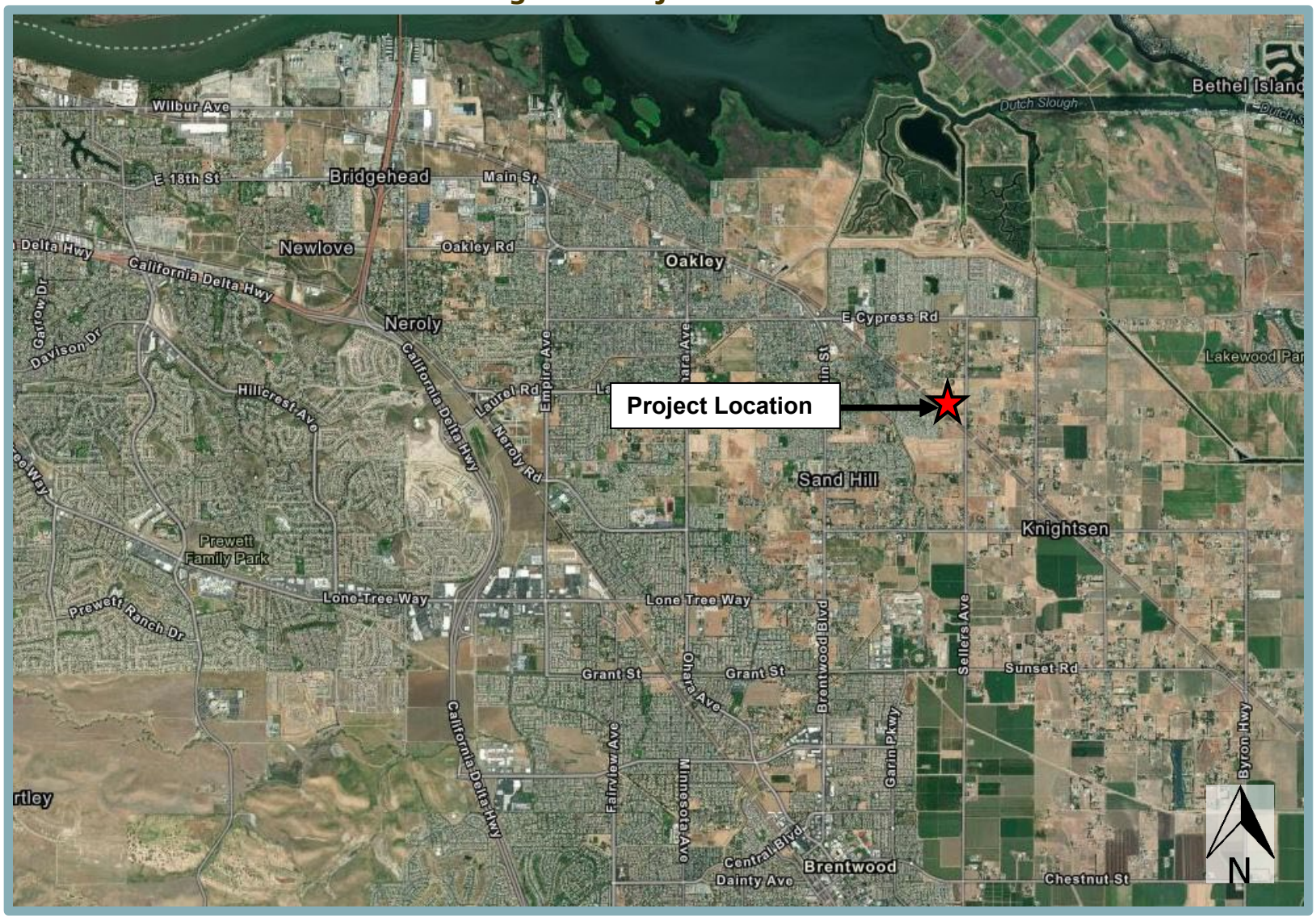
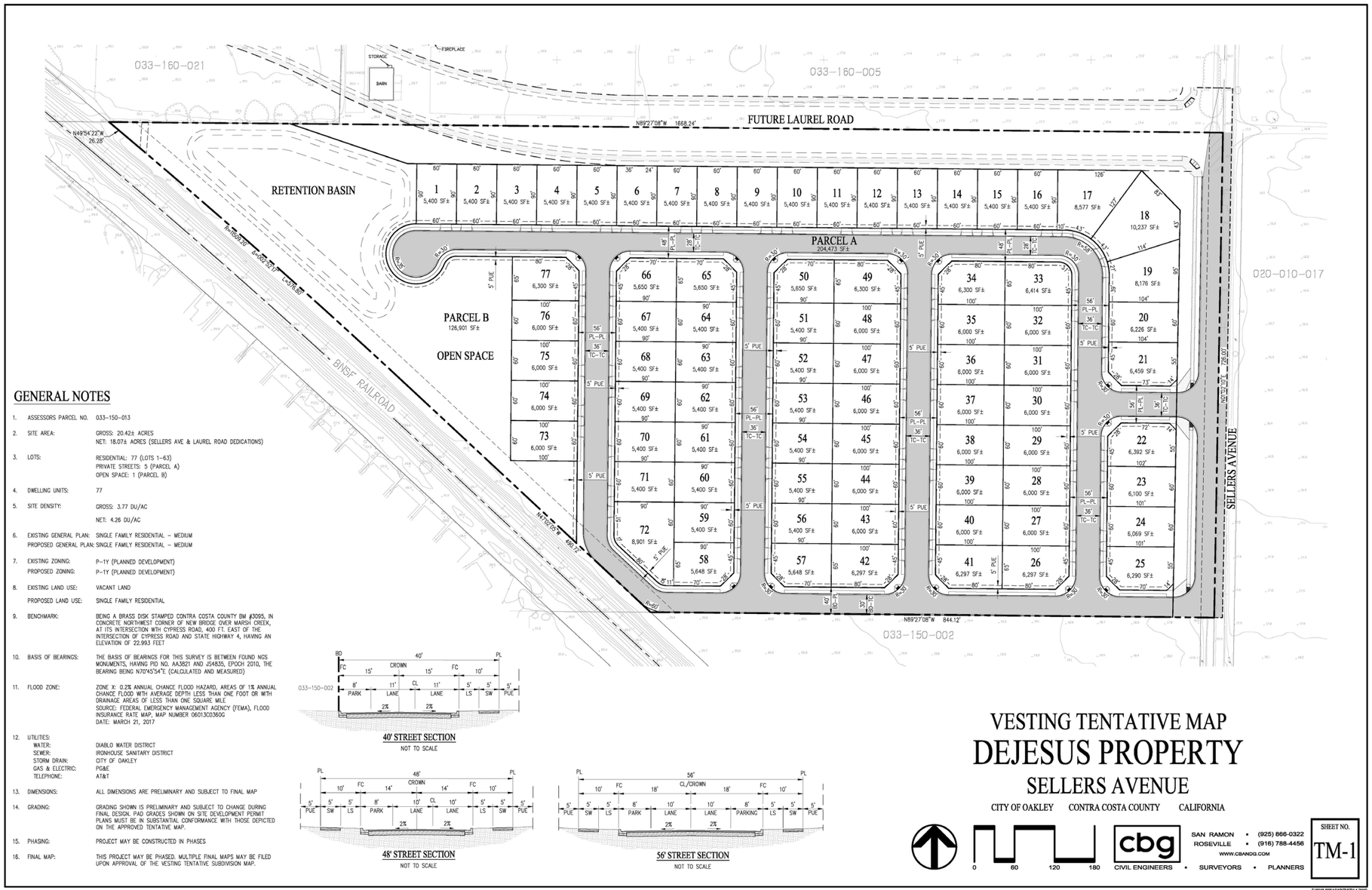


**Figure 2**
**Project Site Boundaries**



**Figure 3**
**Vesting Tentative Map**



## Site Access and Circulation

Primary vehicular access to the site would be provided by a new roadway off of Sellers Avenue. An internal private roadway system would be constructed in Parcel A of the project site to provide access to each unit. The internal circulation system would generally provide 36 feet of travel lane and five-foot-wide sidewalks on each side.

## Landscaping

All existing on-site trees would be removed to accommodate the proposed project. Landscaping improvements would be provided throughout the project site and along residential frontages (see Figure 4). A variety of trees, shrubs, and drought-tolerant landscaping would be provided along internal roadways including, but not limited to, *Lagestroemia Indica x Fauriei 'Natchez'* (Natches Crape Myrtle), *Lagestroemia Indica x Fauriei 'Zuni' (*Zuni Crape Myrtle), and *Laurus x 'Saratoga'* (Saratoga Hybrid Laurel), and *Pistacia Chinensis Red Push'* (Red Push Chinese Pistache). *Dodonae Viscosa 'Purpurea' STD* (Purple Hopseed Bush) trees would align the main access point into the project site. All landscaping would comply with the State's Model Water Efficient Landscape Ordinance (MWELO).

The tot-lot/picnic area, located on Parcel B, would consist of recreational turf, paved concrete walkways, picnic tables and a seating bench, trash receptacles, and play equipment for children ages five to 12.

## Utilities

A preliminary utility plan has been prepared for the proposed project and is included as Figure 5. Water service for the proposed project would be provided by the Diablo Water District (DWD). The proposed project would include construction of new eight-inch water lines throughout the project site and 1,880 linear feet (LF) of a northerly 24-inch water line in Sellers Avenue. The water system would connect to the existing 24-inch water main in E. Cypress Road.

Sanitary sewer service for the proposed project would be provided by the Ironhouse Sanitary District (ISD). The proposed project would include construction of new eight-inch sanitary sewer lines throughout the project site and 2,600 LF of a northerly eight-inch sewer line in Sellers Avenue. The new sewer network would connect to the existing sanitary sewer main in E. Cypress Road.

The off-site extension of the water and sewer lines in Sellers Avenue would occur entirely within the existing right-of-way (ROW).

A Preliminary Stormwater Control Plan has been prepared for the proposed project (see Figure 6). Stormwater from the impervious areas within the site would be collected in new storm drain inlets/catch basins and directed through storm drain lines towards the retention basin located in the westernmost corner of the site. The retention basin would be landscaped with compost and sandy loam pursuant to *Bioretention Soil Media Specification* in the *Stormwater C.3 Guidebook* in order to effectively treat stormwater. The retention basin and roadway networks would be designed according to the criteria in the Contra Costa County Clean Water Program *Stormwater C.3 Guidebook* to treat stormwater on the project site.

## Figure 4
## Landscape Plan




### PROPOSED TREE PALLETE

| BOTANICAL NAME | COMMON NAME | MIN. SIZE | WUCOLS |
|---|---|---|---|
| CERCIS OCCIDENTALIS | WESTERN REDBUD | 15 GAL | V. LOW |
| DODONAEA VISCOSA 'PURPUREA' STD. | PURPLE HOPSEED BUSH | 15 GAL | LOW |
| LAGERSTROEMIA INDICA X FAURIEI 'NATCHEZ' | NATCHEZ CRAPE MYRTLE | 24"BOX | LOW |
| LAGERSTROEMIA INDICA X FAURIEI 'ZUNI' | ZUNI CRAPE MYRTLE | 15 GAL | LOW |
| LAURUS X 'SARATOGA' | SARATOGA HYBRID LAUREL | 24"BOX | LOW |
| LOPHOSTEMON CONFERTUS | BRISBANE BOX | 24"BOX | MOD |
| PISTACIA CHINENSIS 'RED PUSH' | RED PUSH CHINESE PISTACHE | 24"BOX | LOW |
| PLATANUS X ACERIFOLIA 'COLUMBIA' | LONDON PLANE TREE | 24"BOX | MOD |
| PRUNUS CERASIFERA 'KRAUTER VESUVIUS' | PURPLE LEAF PLUM | 15 GAL | MOD |
| QUERCUS AGRIFOLIA | COAST LIVE OAK | 24"BOX | V. LOW |
| RHAPHIOLEPIS INDICA 'MAGNIFICENT' | MAGNIFICENT INDIAN HAWTHORN | 15 GAL | MOD |

* WATER NEEDS BASED ON THE WATER USE CLASSIFICATION OF LANDSCAPE SPECIES (WUCOLS) BY THE UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION.

**GENERAL NOTES:**

- TREE LAYOUT IS SCHEMATIC. FINAL TREE LOCATIONS AND SPECIES SUBJECT TO CITY REVIEW. STREET TREES LOCATED APPROXIMATELY 30' O.C.
- ALL LANDSCAPE AREAS THAT ARE INSTALLED BY DEVELOPER SHALL RECEIVE IRRIGATION BY MEANS OF AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM(S). THE SYSTEM(S) WILL BE DESIGNED UTILIZING BACKFLOW PREVENTION DEVICES TO MEET LOCAL AND UBC CODES.

MLC Holdings, Inc.
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**DEJESUS PROPERTY**
Oakley, California

**OVERALL LANDSCAPE PLAN**
CONCEPTUAL LANDSCAPE PLAN
DECEMBEER 2, 2021

vanderToolen Associates
855 Bordeaux Way
Suite 240
Napa, CA 94558
tel: 707.224.2299
www.vandertoolen.com

SCALE: 1" = 50'-0"
NORTH

L-1
Project No. 05420

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**Figure 5**
**Preliminary Utility Plan**

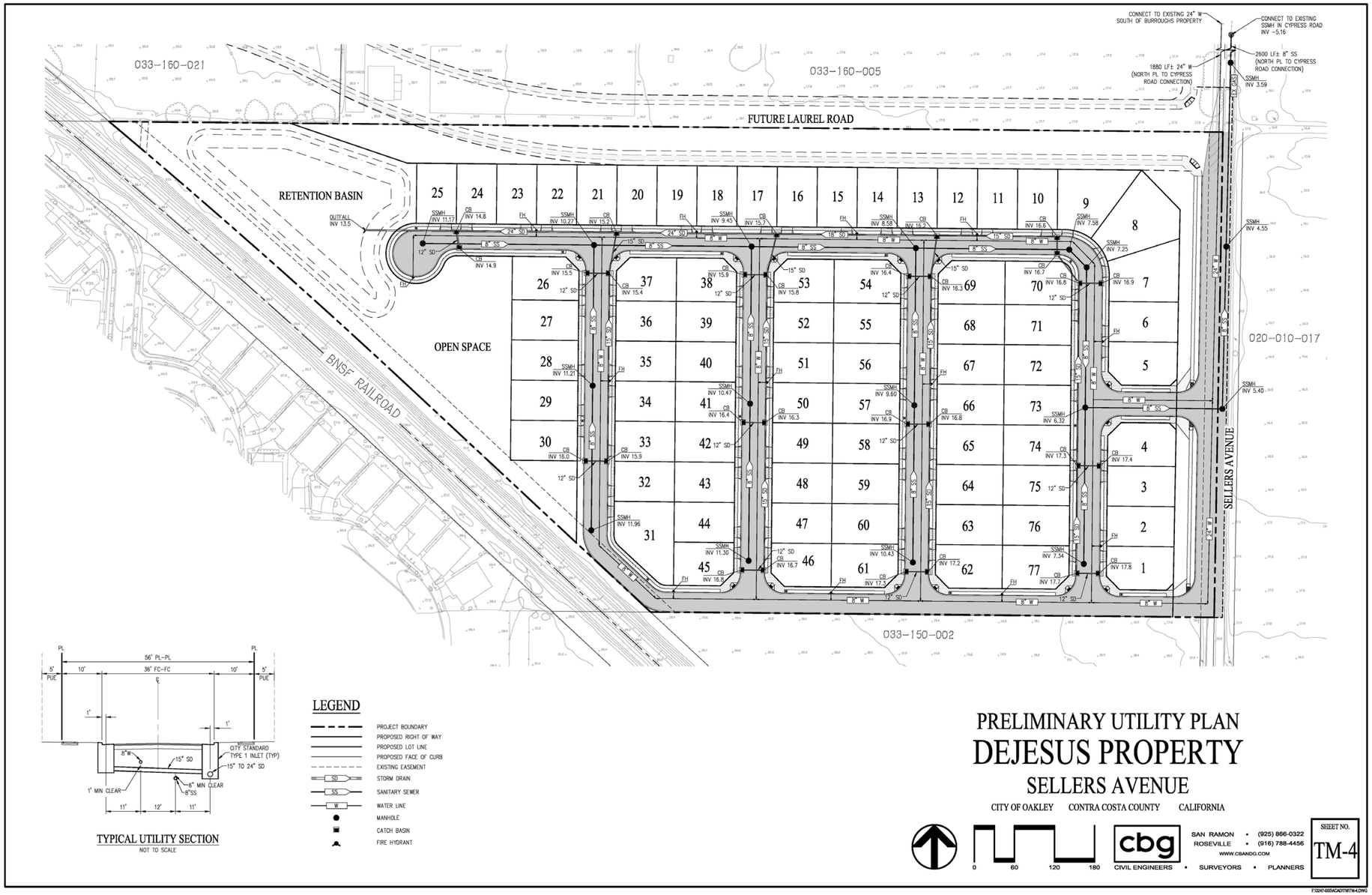
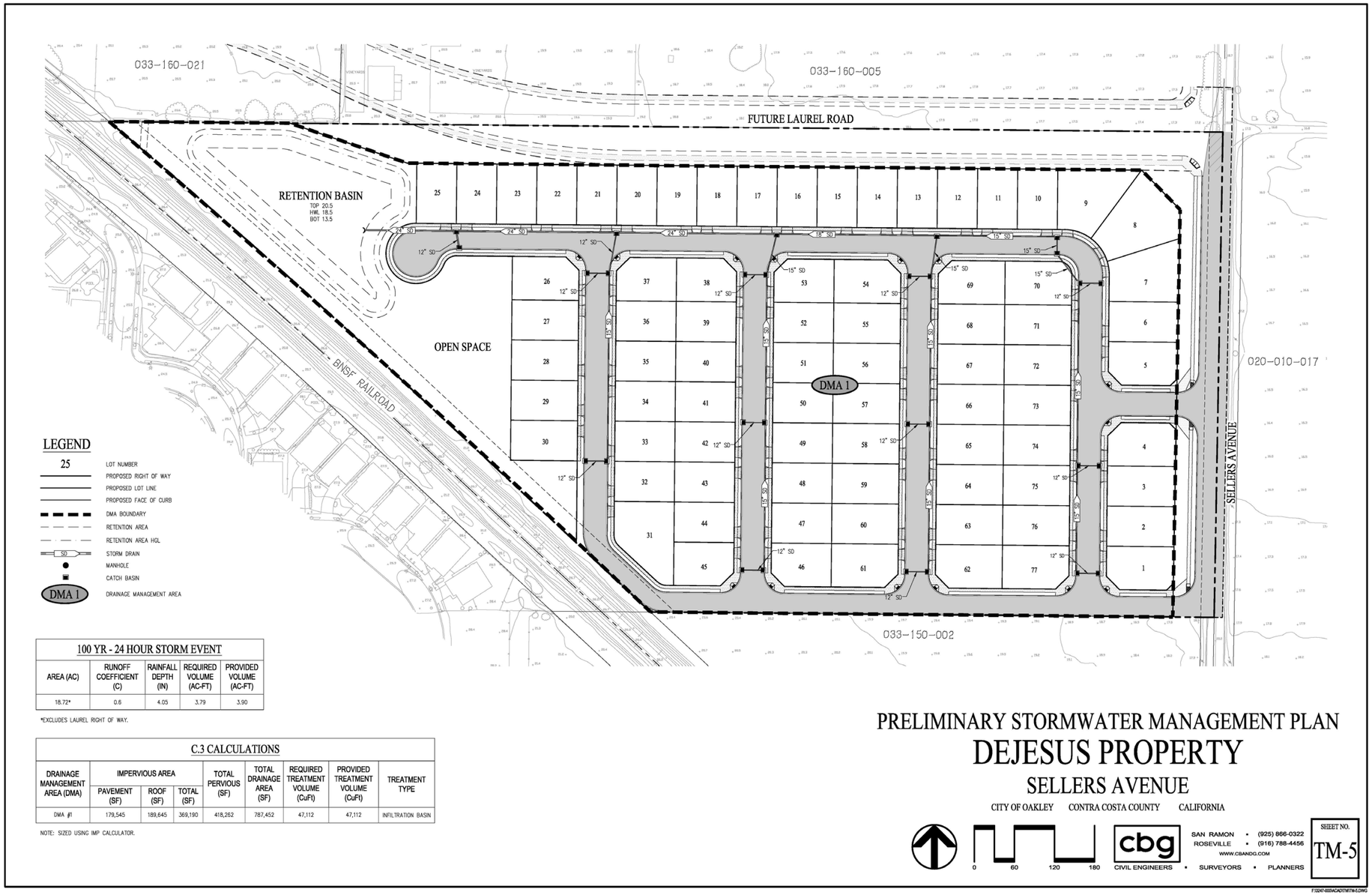


**Figure 6**
**Preliminary Stormwater Control Plan**




**100 YR - 24 HOUR STORM EVENT**

| AREA (AC) | RUNOFF COEFFICIENT (C) | RAINFALL DEPTH (IN) | REQUIRED VOLUME (AC-FT) | PROVIDED VOLUME (AC-FT) |
|---|---|---|---|---|
| 18.72* | 0.6 | 4.05 | 3.79 | 3.90 |

*EXCLUDES LAUREL RIGHT OF WAY.

**C.3 CALCULATIONS**

| DRAINAGE MANAGEMENT AREA (DMA) | IMPERVIOUS AREA | | | TOTAL PERVIOUS (SF) | TOTAL DRAINAGE AREA (SF) | REQUIRED TREATMENT VOLUME (CuFt) | PROVIDED TREATMENT VOLUME (CuFt) | TREATMENT TYPE |
|---|---|---|---|---|---|---|---|---|
| | PAVEMENT (SF) | ROOF (SF) | TOTAL (SF) | | | | | |
| DMA #1 | 179,545 | 189,645 | 369,190 | 418,262 | 787,452 | 47,112 | 47,112 | INFILTRATION BASIN |

NOTE: SIZED USING IMP CALCULATOR.

PRELIMINARY STORMWATER MANAGEMENT PLAN
DEJESUS PROPERTY
SELLERS AVENUE
CITY OF OAKLEY CONTRA COSTA COUNTY CALIFORNIA

cbg CIVIL ENGINEERS • SURVEYORS • PLANNERS
SAN RAMON • (925) 866-0322
ROSEVILLE • (916) 788-4456
WWW.CBANDG.COM

SHEET NO. TM-5

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### Design Review

Per Section 9.1.1604 of the City's Municipal Code, the proposed project would be subject to Design Review by the City. Specifically, the site plan would be analyzed based on elements of design, development location, arrangement of all structures, and design in harmony with surrounding facilities. The purpose of the regulations is to allow design review of all developments, signs, buildings, structures, and other facilities in order to further enhance the City's appearance, and the livability and usefulness of properties.

### Discretionary Actions

The proposed project would require the following approvals from the City of Oakley:

- Adoption of the Initial Study/Mitigated Negative Declaration (IS/MND);
- Adoption of the Mitigation Monitoring and Reporting Program (MMRP);
- Approval of a Rezone (RZ) amending the P-1 (Planned Unit Development) District;
- Approval of a Final Development Plan (FDP);
- Approval of a Vesting Tentative Map (VTM); and
- Approval of Design Review (DR).

## G. ENVIRONMENTAL CHECKLIST

The following checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. For this checklist, the following designations are used:

**Potentially Significant Impact:** An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

**Less Than Significant with Mitigation Incorporated:** An impact that requires mitigation to reduce the impact to a less-than-significant level.

**Less-Than-Significant Impact:** Any impact that would not be considered significant under CEQA relative to existing standards.

**No Impact:** The project would not have any impact.

| **I. AESTHETICS.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ✖ | ☐ |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? | ☐ | ☐ | ✖ | ☐ |
| c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | ☐ | ☐ | ✖ | ☐ |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ✖ | ☐ |

## Discussion

a. Examples of typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project's impact to a scenic resource would occur if development of the project would substantially change or remove a scenic resource. A scenic resource includes any such areas designated by a federal, State, or local agency. The City's predominantly flat landscape is rich in scenic resources. Oakley's scenic resources include the waterways of the Delta, Dutch Slough, Marsh Creek, and Contra Costa Canal, habitat areas, and open space land. Other scenic resources include the view of Mount Diablo west of the City.[1] Views of the Delta, Dutch Slough, Marsh Creek, and the Contra Costa Canal, are not available from the project site.

Mount Diablo can be viewed above the roofline towards the southwest horizon by motorists travelling along Sellers Avenue. However, public views of Mount Diablo would not be obstructed by development of the proposed project given the proposed building heights in comparison to the scale of Mount Diablo.

Furthermore, because the proposed project would be consistent with the General Plan land use designation for the site, potential impacts to scenic vistas and visual character associated with future development of the project site were already evaluated and considered in the General Plan EIR, which concluded that the General Plan's goals, policies, and programs would reduce any potential impacts on the aesthetic qualities to a less-than-significant level.[2]

Based on the above, a ***less-than-significant*** impact would occur related to the project having a substantial adverse effect on a scenic vista.

b. According to the California Scenic Highway Mapping System, portions of SR 580 and 680 are listed as Officially Designated as State Scenic Highways while SR 4 and SR 160 are

[1] City of Oakley. *City of Oakley General Plan* [pg. 6-24]. Adopted January 11, 2022.
[2] City of Oakley. *City of Oakley 2020 General Plan Draft Environmental Impact Report* [pg. 3-24]. September 2002.

listed as Eligible designations.[3] The project site is located approximately 17.80 miles north of SR 580 and 19.64 miles east of SR 680. Views of the project site from either highway are not available due to the substantial distance and intervening urban development. Development of the proposed project would, therefore, not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. Thus, a ***less-than-significant*** impact would occur.

c. The project site is located within a developed area of the City. Therefore, the applicable CEQA consideration is whether the project would conflict with applicable zoning and other regulations related to scenic quality.

The City of Oakley General Plan designates the project site as RL and the site is zoned P-1. The purpose of the P-1 District is to allow diversification in the relationship of various uses, buildings, structures, lot sizes, and open spaces. The proposed project includes a Final Development Plan of the P-1 District for the project site, which would include development standards. Furthermore, it is noted that the proposed residential development is generally consistent with the residential development type allowed in the surrounding RL designated sites.

Implementation of the proposed project would also require Design Review, which is a City regulation related to scenic quality. Design Review would ensure that the aesthetic and architectural design of the development would be compatible with surrounding development. The proposed project would include landscaping features at the project site frontage and within the project site that would be similar to existing features in the development west of the site, and proposed residences would be designed in keeping with the surrounding residential land uses.

Based on the above, the proposed project would not conflict with applicable zoning and other regulations governing scenic qualities, and a ***less-than-significant*** impact would occur.

d. Substantial sources of light do not currently exist on the project site, as the site is mostly undeveloped except for the farmhouse and associated structures. However, off-site light sources may include streetlights and traffic along Sellers Avenue, the BNSF railroad, scattered rural housing to the north, south and east, as well as more intensive light sources from the residential developments to the west. Development of the project site with 77 single-family residences and the internal road system would add new sources of light and glare to the site where few currently exist. The proposed project is anticipated to include streetlights along internal roadways and the project frontage, as well as interior lights from windows of the proposed residences. Anticipated light sources are expected to be similar to that of the residential developments to the west.

Pursuant to Section 9.1.1604 of the City's Municipal Code, the project would be required to undergo a Design Review to ensure that development of the project would be in compliance with the Residential Design Guidelines, which, among other things, establishes the City's standard for residential streetlights and limits residential lighting for security purposes. In addition, because the proposed project would be consistent with the General Plan land use designation for the site, the impacts of new sources of light or glare

[3] California Department of Transportation. *California State Scenic Highway System Map*. Available at: https://www.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed May 2022.

associated with future development of the project site were already evaluated and considered in the General Plan EIR and Update IS/ND analysis. Therefore, any creation of new sources of light and glare by the proposed project would be considered a ***less-than-significant*** impact.

| **II. AGRICULTURE AND FOREST RESOURCES.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ✖ | ☐ |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ✖ |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | ☐ | ☐ | ☐ | ✖ |
| d. Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ✖ |
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | ☐ | ☐ | ✖ | ☐ |

## Discussion

a,e. Pursuant to the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program, the project site is designated as "Farmland of Local Importance."[4] The DOC defines Farmland of Local Importance as "land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee." The site does not contain Unique Farmland or Farmland of Statewide Importance. In addition, the project site is designated RL, zoned P-1, and does not include forested land. Overall, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use or result in the loss of forest land to non-forest use. Thus, a ***less-than-significant*** impact would occur as a result of the proposed project.

b. The project site is zoned P-1, which does not permit agricultural land uses. In addition, the site is not under an active Williamson Act contract.[5] Therefore, the proposed project would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract, and ***no impact*** would occur.

c,d. The project site is not zoned forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]). Therefore, the proposed project would have ***no***

[4] California Department of Conservation. *California Important Farmland Finder.* Available at: https://maps.conservation.ca.gov/dlrp/ciff/. Accessed May 2022.

[5] Contra Costa Conservation and Development. *2016 Agricultural Preserves Map.* Available at: https://www.contracosta.ca.gov/DocumentCenter/View/882/Map-of-Properties-Under-Contract. Accessed May 2022.

***impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

| **III. AIR QUALITY.** *Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ✖ | ☐ |
| b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | ☐ | ☐ | ✖ | ☐ |
| c. Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ✖ | ☐ |
| d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | ☐ | ☐ | ✖ | ☐ |

## Discussion

a,b. The City of Oakley is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB area is currently designated as a nonattainment area for State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State respirable particulate matter 10 microns in diameter ($PM_{10}$) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2017 Clean Air Plan, adopted on April 19, 2017. The 2017 Clean Air Plan was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State $PM_{10}$ standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 Clean Air Plan. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure

continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen ($NO_X$), as well as for $PM_{10}$ and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr), are listed in Table 1. By exceeding the BAAQMD's mass emission thresholds for ROG, $NO_X$, $PM_{10}$, or $PM_{2.5}$, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

**Table 1**
**BAAQMD Thresholds of Significance**

| Pollutant | Construction | Operational | |
|---|---|---|---|
| | Average Daily Emissions (lbs/day) | Average Daily Emissions (lbs/day) | Maximum Annual Emissions (tons/yr) |
| ROG | 54 | 54 | 10 |
| $NO_x$ | 54 | 54 | 10 |
| $PM_{10}$ (exhaust) | 82 | 82 | 15 |
| $PM_{2.5}$ (exhaust) | 54 | 54 | 10 |

***Source: BAAQMD, CEQA Guidelines, May 2017.***

Emissions of particulate matter can be split into two categories: fugitive emissions and exhaust emissions. The BAAQMD thresholds of significance for exhaust are presented in Table 1. It should be noted that BAAQMD does not maintain quantitative thresholds for fugitive emissions of $PM_{10}$ or $PM_{2.5}$, rather, BAAQMD requires all projects within the district's jurisdiction to implement Basic Construction Mitigation Measures (BCMMs) related to dust suppression.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2022.1 - a Statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information is applied in the model. The proposed project's modeling assumed the following:

- Construction would begin in January 2023 and occur over approximately 2.5 years;[6]
- Demolition would involve the removal of approximately 8,000 sf of building material;
- The off-site infrastructure improvements would involve 0.5-mile of ground disturbance;
- Operational trip generation rates were updated to 9.43 vehicle trips per unit, consistent with the project-specific Traffic Impact Analysis prepared by TJKM;
- Wood-burning fireplaces would not be included; and

[6] It is noted that actual construction of the proposed project would likely commence later than January 2023. However, given the ongoing trend of increasingly stringent requirements for heavy-duty equipment engines, this assumption is considered conservative, and actual construction-related emissions would likely be less than those presented herein.

- The project would comply with all applicable provisions of the 2019 California Building Standards Code (CBSC), the 2019 CALGreen Code, and the MWELO.

The proposed project's estimated emissions associated with construction and operations are presented and discussed in further detail below. A discussion of the proposed project's contribution to cumulative air quality conditions is provided below as well. All CalEEMod modeling results are included as Appendix A to this IS/MND.

## Construction Emissions

According to the CalEEMod modeling results, buildout of the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the proposed project's construction emissions would be below the applicable thresholds of significance for ROG, $NO_X$, $PM_{10}$, and $PM_{2.5}$.

**Table 2**
**Maximum Unmitigated Construction Emissions (lbs/day)**

| Pollutant | Construction Emissions | Threshold of Significance | Exceeds Threshold? |
|---|---|---|---|
| ROG | 5.07 | 54 | **NO** |
| $NO_X$ | 44.5 | 54 | **NO** |
| $PM_{10}$* | 1.96 | 82 | **NO** |
| $PM_{2.5}$* | 1.80 | 54 | **NO** |

Notes:
* Denotes emissions from exhaust only. BAAQMD does not have adopted PM thresholds for fugitive emissions.

***Sources: CalEEMod, September 2022 (see Appendix A).***

All projects within the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's BCMMs, which would be required by the City as conditions of approval:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of CCR). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take

corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project's required implementation of the BAAQMD's BCMMs listed above for the project's construction activities, would help to further minimize construction-related emissions.

Overall, because the proposed project would be below the applicable thresholds of significance for construction emissions, project construction would not result in a significant air quality impact.

## Operational Emissions

According to the CalEEMod results, buildout of the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 3. As shown in the table, operations of the proposed project would be below the applicable thresholds of significance. Thus, operations of the project would not be considered to conflict with air quality plans during project operations.

**Table 3**
**Maximum Unmitigated Operational Emissions**

| Pollutant | Proposed Project Emissions | | Threshold of Significance | | Exceeds Threshold? |
|---|---|---|---|---|---|
| | lbs/day | tons/yr | lbs/day | tons/yr | |
| ROG | 7.26 | 1.25 | 54 | 10 | **NO** |
| $NO_X$ | 4.13 | 0.68 | 54 | 10 | **NO** |
| $PM_{10}$* | 0.14 | 0.02 | 82 | 15 | **NO** |
| $PM_{2.5}$* | 0.14 | 0.02 | 54 | 10 | **NO** |

Note:
* Denotes emissions from exhaust only. BAAQMD does not have adopted PM thresholds for fugitive emissions.

***Source: CalEEMod, September 2022 (see Appendix A).***

## Cumulative Emissions

Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions.

Because the proposed project would result in both construction-related and operational emissions below the applicable thresholds of significance, construction and operations of

the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions.

## Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2017 Clean Air Plan. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because construction and operations of the proposed project would result in emissions below the applicable thresholds of significance, the project would not be considered to conflict with or obstruct implementation of regional air quality plans. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standards or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in any criteria air pollutant, and impacts would be considered ***less than significant***.

c. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest sensitive receptors to the project site include the single-family residences located to the west, across the railroad tracks, and the scattered residences to the north, east, and south of the project site boundary. The closest residential unit to the project site is located approximately 55 feet south of the site boundary. The closest receptor to where the off-site infrastructure improvements would occur is located approximately 30 feet to the west.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions, TAC, and criteria pollutants, which are addressed in further detail below.

## Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood.

To provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads

or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

While BAAQMD has established the foregoing screening criteria for potential impacts, it should be noted that the SFBAAB has been in attainment of California AAQS (CAAQS) and National AAQS (NAAQS) for CO for more than 20 years.[7] Due to the continued attainment of CAAQS and NAAQS, and advances in vehicle emissions technologies, the likelihood that any single project would create a CO hotspot is minimal. With regard to the proposed project, according to the Traffic Impact Analysis prepared by TJKM, the proposed project is expected to generate approximately 802 daily vehicle trips, 60 of which would be during the AM peak hour, and 80 during the PM peak hour.[8] The addition of 140 total peak hour trips per day generated by the proposed project is not anticipated to increase traffic volumes at any nearby intersections to more than 44,000 vehicles per hour. Furthermore, areas where vertical and/or horizontal mixing is limited due to tunnels, underpass, or similar features do not exist in the project area. Therefore, based on the BAAQMD's screening criteria for localized CO emissions, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards or cause health hazards.

## TAC Emissions

Another category of environmental concern is TACs. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM.

The proposed project does not include any operations that would be considered a substantial source of TACs. Accordingly, operations of the proposed project would not expose sensitive receptors to excess concentrations of TACs.

Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, as discussed above, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Health risks are typically associated with exposure to high concentrations of TACs over extended periods

[7] Bay Area Air Quality Management District. *Air Quality Summary Reports*. Available at: http://www.baaqmd.gov/about-air-quality/air-quality-summaries. Accessed August 2022.
[8] TJKM. *Sellers Avenue Residential Development Traffic Impact Analysis.* August 1, 2022.

of time (e.g., 30 years or greater), whereas the construction period associated with the proposed project would likely be limited to approximately three years. All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources.

During construction, only portions of the project site would be disturbed at a time. Operation of construction equipment would occur on such portions of the site intermittently throughout the course of a day over the overall construction period. Because construction equipment on-site would not operate for any long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, sensitive receptors in the area would not be exposed to pollutants for a permanent or substantially extended period of time. Furthermore, any one nearby sensitive receptor would be exposed to varying concentrations of DPM emissions throughout the construction period. According to BAAQMD, research conducted by CARB indicates that DPM is highly dispersive in the atmosphere. Thus, emissions at the project site would be substantially dispersed at the nearest sensitive receptors, and the concentration of DPM at the nearest sensitive receptors would be lower than the concentration of DPM at the source of emissions.

Considering the limited nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, the highly dispersive nature of DPM, and the distance of the nearest sensitive receptor from the project site, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time, during development the project, would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations.

## Criteria Pollutants

The BAAQMD thresholds of significance were established with consideration given to the health-based air quality standards established by the NAAQS and CAAQS, and are designed to aid the district in achieving attainment of the NAAQS and CAAQS.[9] Although the BAAQMD's thresholds of significance are intended to aid achievement of the NAAQS and CAAQS for which the SFBAAB is in nonattainment, the thresholds of significance do not represent a level above which individual project-level emissions would directly result in public health impacts. Nevertheless, a project's compliance with BAAQMD's thresholds of significance provides an indication that criteria pollutants released as a result of project implementation would not inhibit attainment of the health-based regional NAAQS and CAAQS. Because project-related emissions would not exceed the BAAQMD's thresholds, and, thus, would not inhibit attainment of regional NAAQS and CAAQS, the criteria pollutants emitted during project implementation would not be anticipated to result in measurable health impacts to sensitive receptors. Accordingly, the proposed project would not expose sensitive receptors to excess concentrations of criteria pollutants.

## Conclusion

[9] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.

Based on the above discussion, the proposed project would not expose any sensitive receptors to substantial concentrations of pollutants, including localized CO, TACs, or criteria pollutants, during construction or operation. Therefore, the proposed project would result in a ***less-than-significant*** impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

d. Emissions of principal concern include emissions leading to odors, emission that have the potential to cause dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in questions 'a' through 'c' above. Therefore, the following discussion focuses on emissions of odors and dust.

Per the BAAQMD CEQA Guidelines, odors are generally regarded as an annoyance rather than a health hazard.[10] Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The presence of an odor impact is dependent on a number of variables including: the nature of the odor source; the frequency of odor generation; the intensity of odor; the distance of odor source to sensitive receptors; wind direction; and sensitivity of the receptor. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative analysis to determine the presence of a significant odor impact is difficult. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses.

Construction activities often include diesel-fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, construction activities would be temporary, and hours of operation for construction equipment would be restricted to the hours of 7:30 AM to 7:00 PM on weekdays and 9:00 AM to 7:00 PM on weekends and holidays per Section 4.2.208 of the City of Oakley Municipal Code. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize emissions, including emissions leading to odors. Accordingly, substantial objectionable odors would not be expected to occur during construction activities.

BAAQMD regulates objectionable odors through Regulation 7, Odorous Substances, which does not become applicable until the Air Pollution Control Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period. Once effective, Regulation 7 places general limitation on odorous substances and specific emission limitations on certain odorous compounds, which remain effective until such time that citizen complaints have not been received by the APCO for one year. The limits of Regulation 7 become applicable again when the APCO receives odor complaints from five or more complainants within a 90-day period. Thus, although not anticipated, if odor complaints are made after the proposed project is developed, the BAAQMD would ensure that such odors are addressed, and any potential odor effects are minimized or eliminated.

[10] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines* [pg. 7-1]. May 2017.

With respect to dust, as noted previously, all projects under the jurisdiction of BAAQMD are required to implement the BAAQMD's BCMMs. Such measures would act to reduce construction-related dust by ensuring that haul trucks with loose material are covered, reducing vehicle dirt track-out, and limiting vehicle speeds within project site, among other methods, which would ensure that construction of the proposed project does not result in substantial emissions of dust. Although the project would require soil hauling, all haul trucks would be covered to minimize emissions of fugitive dust during transport. Following project construction, vehicles operating within the project site would be limited to paved areas of the site, and non-paved areas would be landscaped. Thus, project operations would not include sources of dust that could adversely affect a substantial number of people.

For these reason, construction and operation of the proposed project would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people, and a ***less-than-significant*** impact would occur.

| **IV. BIOLOGICAL RESOURCES.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | ☐ | ☐ | ✖ | ☐ |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service? | ☐ | ☐ | ✖ | ☐ |
| c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ✖ | ☐ |
| d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites? | ☐ | ☐ | ✖ | ☐ |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ✖ | ☐ |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ✖ | ☐ |

## Discussion

The following discussion based primarily on a Planning Survey Report (PSR), prepared by Moore Biological Consultants for the proposed project.[11] The PSR is included as Appendix B to this IS/MND. The PSR did not evaluate the off-site improvement area because all ground disturbance would occur within the existing ROW, where development has already occurred, and sensitive biological resources do not exist.

a,f. Currently, the project site consists of approximately 20.42 acres of predominately undeveloped ruderal grassland that was previously used for agriculture. One farmhouse structure and two ancillary buildings are located in the northern portion of the site. Seven trees are located on-site, six of which surround the on-site farmhouse structure and one in the northeastern corner of the site.

Special-status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal and State Endangered Species Acts. Both acts afford protection to listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of

[11] Moore Biological Consultants. *Application Form and Planning Survey Report.* May 2022.

Conservation Concern, sensitive species included in USFWS Recovery Plans, and CDFW special-status invertebrates are all considered special-status species. Although CDFW Species of Special Concern generally do not have special legal status, they are given special consideration under CEQA. In addition to regulations for special-status species, most birds in the U.S., including non-status species, are protected by the Migratory Bird Treaty Act (MBTA) of 1918. Under the MBTA, destroying active nests, eggs, and young is illegal. Species that meet the definition of rare, threatened, or endangered under Section 15380 of the CEQA guidelines are also considered special-status species. In addition, plant species on California Native Plant Society (CNPS) categories 1A, 1B, 2B, 3, and 4 are considered special-status plant species and are protected under CEQA.

The project site is located within the boundaries of the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECCCHCP/NCCP), which is intended to provide an effective framework to protect natural resources in the County, including special-status species. Raney Planning and Management conducted a search of the California Natural Diversity Database (CNDDB) for the project site quadrangle, Brentwood. Based on the results of the CNDDB search, 10 special-status wildlife species and eight special-status plant species have the potential to occur within the vicinity of the project site (see Appendix C). Of the 18 special-status species that could occur within the vicinity of the project site, eight species (two special-status plant species and six special-status wildlife species) are covered under the ECCCHCP/NCCP and 10 species (six special-status plant species and four special-status wildlife species) are not covered under the ECCCHCP/NCCP.

In February 2015, the East Contra Costa County Habitat Conservancy prepared an ECCCHCP/NCCP Assessment of Plan Effects on CEQA Species.[12] The purpose of the assessment was to provide a programmatic, cumulative CEQA effects analysis for CEQA species not covered by the HCP/NCCP. The 2015 ECCCHCP/NCCP Assessment of Plan Effects on CEQA Species concluded that mitigation measures required in the ECCCHCP/NCCP also provide mitigation for non-covered species; therefore, projects consistent with the ECCCHCP/NCCP would have a less-than-significant impact on other potential special-status species. As a result, because the project area is covered by the ECCCHCP/NCCP, the 18 special-status species that were identified to have the potential to occur in the project area, as noted above, are not discussed further herein.

According to the 2015 ECCCHCP/NCCP Assessment of Plan Effects on CEQA Species, for all but two of the potential special-status species addressed (Lime Ridge navarretia [*Navarretia gowenii*] and the Lime Ridge eriastrum [*Eriastrum ertterae]*), impacts would be less than significant under CEQA. Because of uncertainty regarding the distribution of the Lime Ridge navarretia and the Lime Ridge eriastrum, the 2015 ECCCHCP/NCCP Assessment of Plan Effects on CEQA Species concluded that a potentially significant impact could occur related to the two aforementioned species. Based on the CNDDB search conducted by Raney Planning & Management, Inc., known occurrences of Lime Ridge navarretia or Lime Ridge eriastrum did not occur within the project site quadrangle. Therefore, implementation of the proposed project would not impact the species. Based on the conclusions of the 2015 ECCCHCP/NCCP Assessment of Plan Effects on CEQA Species and the absence of the Lime Ridge navarretia and Lime Ridge eriatrum in the vicinity of the project site, the proposed project would have a less-than-significant impact on any potential special-status wildlife species and potential special-status plant species

[12] H.T. Harvey & Associates. *East Contra Costa County Habitat Conservation Plan – Assessment of Plan Effects on CEQA Species.* February 17, 2015.

not covered by the ECCCHCP/NCCP that could occur within the vicinity of the project site because the proposed project would be required to comply with the ECCCHCP/NCCP.

In compliance with the ECCCHCP/NCCP, the PSR prepared for the proposed project by Moore Biological Consultants included all species covered under the ECCCHCP/NCCP. According to the PSR, approximately 19.78 acres of the site are categorized by the Grassland (Ruderal) land cover type, 0.64 acres of the site are considered Developed (Urban) (see Figure 7).

Based on the on-site land cover types, Moore Biological Consultants determined that covered plant species do not have the potential to occur on-site. As a result, special-status plants are not discussed further. However, based on the on-site land cover types, Moore Biological Consultants conducted planning-level surveys on the project site for western burrowing owl, Swainson's hawk, and golden eagle.

## Special-Status Wildlife

The on-site ruderal grassland and on-site trees could provide potential habitat for western burrowing owl (*Athene cunnicularia*), Swainson's hawk (*Buteo swainsoni*), and golden eagle (*Aquila chrysaetos*). In addition, other avian species protected by the MBTA could use the existing grassland as foraging and potential nesting habitat.

### Western Burrowing Owl

The primary habitat requirement for western burrowing owls is small mammal burrows that the species uses for nesting. Typically, the species uses abandoned ground squirrel burrows, but western burrowing owls have been known to dig burrows in softer soils. In urban areas, western burrowing owls may use pipes, culverts, and piles of material as artificial burrows. Western burrowing owls breed semi-colonially from March through August.

The project site contains ruderal grassland within the range of western burrowing owl habitat. However, the CNDDB search did not include records of the species within 500 feet of the project site. The nearest record of burrowing owl in the CNDDB search area is approximately 0.25-mile northwest of the project site. As part of the PSR, the site was inspected for burrowing owls and ground squirrel burrows with evidence of burrowing owl occupancy (i.e., white wash, pellets, feathers). Few ground squirrel burrows were observed during the survey. However, burrowing owls or burrows with evidence of burrowing owl occupancy were not observed during the survey. Nonetheless, because suitable habitat for western burrowing owl exists on the project site, pre-construction surveys for burrowing owls would be required by the ECCCHCP/NCCP to confirm presence or absence of the species. If burrowing owls are present on or near the project site, the proposed project could result in an adverse impact to the species.

### Swainson's Hawk

Swainson's hawk is a summer resident and migrant in California's Central Valley and scattered portions of the southern California interior.

## Figure 7
## Land Cover Types



Areas typically used for nesting include the edge of narrow bands of riparian vegetation, isolated patches of oak woodland, lone trees, planted and natural trees associated with roads, farmyards and sometimes adjacent residential areas. Foraging occurs in open habitats, including grasslands, open woodlands, and agricultural areas.

According to the PSR, the site contains areas of ruderal grassland and is along the western edge of the range of Swainson's hawk habitat. Seven trees, as well as several potential nest trees near and visible from the site, are identified as potentially suitable for nesting. As part of the PSR, trees within the project site and vicinity were inspected for raptor stick nests. Raptor stick nests were not observed in the on-site trees or in trees visible from the site. Swainson's hawks were not observed during the field survey, which was conducted outside of the nesting season for the species. The CNDDB search conducted as part of the PSR did not include any occurrences of Swainson's hawks within 1,000 feet of the project site. However, one occurrence was found within 0.5 miles of the project site. Nonetheless, pre-construction surveys for Swainson's hawk are required by the ECCCHCP/NCCP to confirm the presence or absence of the species. If the species were to occur on or near the project site, implementation of the proposed project could result in direct take or nest abandonment, which would be considered an adverse impact.

### Golden Eagle

Golden eagles are fairly adaptable in habitat but often reside in areas with few shared ecological characteristics, such as mountains and cliffs. In addition, golden eagles tend to avoid developed areas. The project site contains ruderal grassland that is located within the range of the golden eagle.

As noted above, the seven on-site trees as well as trees within the project vicinity which are potentially suitable for nesting, were inspected for raptor stick nests, and raptor stick nests were not observed. In addition, golden eagles were not observed on-site, and the CNDDB search did not include any occurrences of golden eagles within a 0.5-mile radius of the project site. Furthermore, the species typically nests more often on cliffs in remote natural areas than in trees near urban areas. Nonetheless, pre-construction surveys for golden eagle are required by the ECCCHCP/NCCP to confirm presence or absence of the species. If golden eagle is present on or near the project site, the proposed project could result in an adverse impact to the species.

### Nesting Raptors and Migratory Birds

The trees on-site may be used by other migratory birds protected by the MBTA, including the white-tailed kite, for nesting. As part of the proposed project, all trees on site would be removed. Construction activities that adversely affect the nesting success of raptors and migratory birds (i.e., lead to the abandonment of active nests) or result in mortality of individual birds constitute a violation of State and federal laws, and in the event that such species occur on or near the project site during the breeding season, project construction activities could result in an adverse effect to species protected under the MBTA.

## ECCCHCP/NCCP Requirements

Procedures for pre-construction surveys, best management practices, and construction monitoring, as well as Applicable Avoidance and Minimization Measures for species covered by the ECCCHCP/NCCP are outlined in Section 6.3.3 Surveys for Construction

Monitoring and Section 6.4.3 Species-Level Measures of the ECCCHCP/NCCP.[13] The project would be required to comply with all ECCCHCP/NCCP requirements, including conducting pre-construction surveys prior to ground disturbance activities to establish whether nests of Swainson's hawks and golden eagles are occupied. If nests are occupied, the project would be required to comply with the minimization requirements and construction monitoring in the ECCCHCP/NCCP. In compliance with the ECCCHCP/NCCP, the project would also be required to follow Applicable Avoidance and Minimization Measures if nests are located within 1,000 feet of the project site.

All birds covered by the ECCCHCP/NCCP (tricolored blackbird, western burrowing owl, golden eagle, and Swainson's hawk) are also considered migratory birds and are subject to the prohibitions of the MBTA. Therefore, actions conducted under the ECCCHCP/NCCP comply with the provisions of the MBTA. Conservation Measure 1.12, Implement Best Management Practices for Rural Road Maintenance, and Conservation, Measure 1.14, Design Requirements for Covered Roads Outside of the UDA, of the ECCCHCP/NCCP incorporates avoidance guidelines for compliance with the MBTA. Because the project would comply with all ECCCHCP/NCCP requirements, the project would also comply with the provisions of the MBTA.

Additionally, the proposed project would be subject to pay all applicable fees according to the Fee Zone Map of the ECCCHCP/NCCP prior to construction and in compliance with Section 9.2.712 of the Oakley Municipal Code. The developer would be required to pay the appropriate fees based on the applicable fee calculator at the time of development.

### Conclusion

Based on the above, western burrowing owls, Swainson's hawks, golden eagles, and other nesting migratory birds and raptors, have the potential to occur on-site. However, the project would comply with ECCCHCP/NCCP requirements, and pre-construction surveys would be required. The project would be required to comply with the ECCCHCP/NCCP's Applicable Avoidance and Minimization Measures for western burrowing owl, Swainson's hawk, golden eagle, and nesting and migratory birds. The proposed project would comply with all applicable ECCCHCP/NCCP requirements. Thus, the proposed project would not have an adverse effect, either directly or through habitat modifications, on species identified as special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS, nor conflict with provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or State habitat conservation plan. As such, a ***less-than-significant*** impact would result.

b,c. The project site consists of ruderal grassland habitats and does not contain riparian habitat or other sensitive natural communities, including wetlands, or potentially jurisdictional waters of the State.[14] Therefore, the proposed project would not have a substantial adverse effect on riparian habitat, sensitive natural communities, or federally protected wetlands, and a ***less-than-significant*** impact would occur.

[13] East Contra Costa County Habitat Conservation Plan Association. *Final East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan.* October 2006.

[14] U.S. Fish and Wildlife Service. *National Wetlands Inventory.* Available at: https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/. Accessed August 2022.

d. The project site consists of predominantly undeveloped ruderal grassland with the exception of one farmhouse and two ancillary buildings in the northern portion of the site, and is bordered by scattered rural residences with small-scale agricultural uses to the north, south, and east, and single-family residences beyond the BNSF railroad tracks along the western site boundary. Furthermore, the project site and the surrounding areas have been used as agricultural land since at least 1939 and, therefore, have been subject to regular disturbance. The developed nature of the surrounding area precludes the use of the project site as a migratory corridor and, therefore, the project site and surrounding area are not anticipated to support any substantial wildlife movement corridors or wildlife nursery sites. As such, the project would not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites, and a ***less-than-significant*** impact would occur.

e. As previously noted, seven trees currently exist on the project site, all of which would be removed as part of the project.

Section 9.1.1112 of the Municipal Code defines protected trees and heritage trees, and establishes requirements governing the removal of such. Section 9.1.1112 defines a protected tree as any tree adjacent to or part of a riparian habitat, foothill woodland, or oak savanna that measures 20 inches or larger and an indigenous tree that measures 40 inches or larger or as a California native oak that measures at least 50 inches in circumference (15.6 inches diameter). Section 9.1.1112 also requires that any protected trees that are to be removed shall be replaced.

The seven on-site trees proposed for removal have not been evaluated by an arborist to determine whether any are considered protected by the City. If the on-site trees are determined to be protected, removal of such would require replacement, consistent with the regulations established in Section 9.1.1112 of the City's Municipal Code. Therefore, the proposed project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and a ***less-than-significant*** impact would occur.

| **V. CULTURAL RESOURCES.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5? | ☐ | ✖ | ☐ | ☐ |
| b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5? | ☐ | ✖ | ☐ | ☐ |
| c. Disturb any human remains, including those interred outside of dedicated cemeteries. | ☐ | ✖ | ☐ | ☐ |

## Discussion

The following discussion is primarily based on a Cultural Resources Study prepared for the proposed project by Solano Archaeological Services, LLC (SAS).[15] It is noted that the off-site improvement area was not surveyed as all ground disturbance would occur within the existing ROW, where development has already occurred.

a-c. The Cultural Resources Study consisted of cultural resources background research, Native American community outreach, and an archaeological survey for the proposed project. On December 6th, 2021, SAS conducted a records search through the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) at Sonoma State University for cultural resource site records and survey reports within the project site. The record search results indicated that cultural resources have not been documented within the project site, although five cultural resource sites have been recorded within the half-mile search radius. Three previous investigations included at least a portion of the project site, and an additional 18 studies were conducted within the general vicinity. Although historic era cultural resources have not been identified on-site, the presence of such resources in the project area indicates that the project vicinity has a history of transportation, residential, and likely agricultural activity particularly during the early-mid 20th century.

On December 9th, 2021, SAS archaeologists conducted a pedestrian survey of the project site using 20-meter parallel transects where exposed mineral soil, rodent burrows, other ground exposures, and erosional areas were thoroughly inspected for archaeological materials and indications of subsurface conditions. The field survey identified two potential cultural resources on the project site. The first resource is an isolated artifact consisting of a fragment of decorative cast-iron potentially part of a late 19th or early 20th century woodstove, fence, horse-drawn buggy, or possibly outdoor furniture. Due to a lack of associations, unique characteristics, data potential, and integrity, SAS determined that the isolated artifact is not eligible for California Register of Historic Resources (CRHR) listing and as such does not constitute a historical resource per CEQA. The second cultural resource is noted as a complex of agricultural buildings and spatially associated debris located in the northeastern portion of the project site which appear to date to the early to middle decades of the 20th century. Additional archival research conducted by SAS identified the building (or buildings) in the project area appear to date to at least the early 1940s. However, the buildings are not anticipated to meet the CRHR criteria for historic resources (i.e., embodies distinctive characteristics of a specific period or region, yield

[15] Solano Archaeological Services, LLC. *Cultural Resources Study – Sellers Avenue Development Project, City of Oakley, Contra Costa County, California.* December 14, 2021.

important information related to history of the local area, associated with significant historical events, etc.) as the on-site buildings appear to be consistent with the type of barn structure that is common in the project area. Nonetheless, out of an abundance of caution, SAS recommended that a qualified architectural historian evaluate the on-site buildings for consistency with the CRHR criteria. If the on-site buildings are determined to meet the criteria to be considered historical resources, then development of the proposed project could cause a substantial adverse change in the significance of a historical resource.

Additionally, while the project site has been subject to ground disturbance associated with past agricultural activities, unknown archaeological resources, including human remains, have the potential to be uncovered during future ground-disturbing construction and excavation activities at the project site. If previously unknown resources are encountered during construction activities, the proposed project could cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturb human remains, including those interred outside of dedicated cemeteries.

Based on the above, development of the site may cause a substantial adverse change in the significance of a historical resource, as well as unique archaeological resource, pursuant to Section 15064.5, and a ***potentially significant*** impact could occur.

## Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

*V-1.* *Prior to the demolition of any on-site buildings, a qualified architectural historian, as approved by the City of Oakley Planning Division, shall evaluate the project site and the on-site structures for qualification per CRHR criteria. If the on-site buildings do not qualify for protection, further mitigation is not required.*

*If the on-site buildings meet the CRHR criteria, then the structures shall be properly documented prior to their demolition. The documentation shall, at a minimum, consist of a report documenting the historical context with descriptive narrative of the resource, and an update of the resource's Department of Parks and Recreation form 523 record. The photo-documentation shall capture the form, materials, design, and setting of the buildings to preserve those characteristics that justify their California Register eligibility. If building relocation is pursued, the photo-documentation shall include views of the resources in their new locations, with an emphasis on the context and architectural setting of their new surroundings. The photo-documentation shall be prepared in concert with a historical context statement and narrative description of the buildings to place the properties in their architectural and historical context. The documentation package shall be distributed to the NWIC, the Contra Costa County Historical Society, the City of Oakley, the Oakley Chamber of Commerce, and, for the purposes of public outreach, the Oakley Public Library.*

*Proof of compliance with the foregoing measure shall be submitted to the City of Oakley Planning Division for review and approval.*

*V-2.* *If buried archaeological, paleontological, and/or cultural resources are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the discovery and the developer shall immediately notify the City of Oakley Planning Division of the discovery. In such case, the developer shall be required, at their own expense, to retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery, as appropriate. The archaeologist shall be required to submit to the City of Oakley Planning Division for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery would not be allowed until the preceding work has occurred.*

*The foregoing requirements shall be noted on the project improvement plans, subject to review and approval by the City of Oakley Planning Division.*

*V-3.* *Pursuant to State Health and Safety Code §7050.5 (c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop within 100 feet of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission, who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place within 100 feet of the find until the identified appropriate actions have been implemented.*

*The foregoing requirements shall be noted on the project improvement plans, subject to review and approval of compliance by the City of Oakley Planning Division.*

| **VI. ENERGY.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | ☐ | ☐ | ✖ | ☐ |
| b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | ☐ | ☐ | ✖ | ☐ |

## Discussion

a,b. The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2019 California Green Building Standards Code (CALGreen Code), the Building Energy Efficiency Standards, and the City's Strategic Energy Plan (SEP), with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operations are provided below.

### California Green Building Standards Code

The CALGreen Code (CCR Title 24, Part 11), is a portion of the CBSC, which became effective on January 1, 2020.[16] The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The CALGreen Code standards regulate the method of use, properties, performance, types of materials used in construction, alteration repair, improvement and rehabilitation of a structure or improvement to property. The provisions of the CALGreen Code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of Electric Vehicle (EV) charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' MWELO, or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board; and
- For most single-family and low-rise residential development developed after January 1, 2020, mandatory on-site solar energy systems capable of producing 100 percent of the electricity demand created by the residence(s). Certain residential developments, including those developments that are subject to substantial shading, rendering the use of on-site solar photovoltaic systems infeasible, are exempted from the foregoing requirement.

[16] California Building Standards Commission. *California Green Building Standards Code*. 2019.

## Building Energy Efficiency Standards

The 2019 Building Energy Efficiency Standards is a portion of the CBSC. Energy reductions relative to previous Building Energy Efficiency Standards are achieved through various regulations including requirements for the use of high-efficacy lighting, improved water heating system efficiency, and high-performance attics and walls. For residential buildings, compliance with the 2019 standards would use approximately seven percent less energy due to energy efficiency measures compared to homes built under the 2016 standards.[17] The Building Energy Efficiency Standards require residential buildings that are three stories or less to include solar photovoltaic systems. Rooftop solar electricity generation would ensure future residences that are built under the 2019 standards further reduce energy consumption and result in about 53 percent less energy use than those residences built under the 2016 Building Energy Efficiency Standards.

## Strategic Energy Plan

In the fall of 2015, the City of Oakley adopted a SEP to help meet State mandates for required energy use and GHG emission reductions.[18] The SEP included six energy planning goals and priorities, including, but not limited to, improving energy performance to exceed Title 24 requirements for new construction and major renovations of the City facilities; exploring opportunities for energy efficiency, demand reduction, and/or clean self-generation measures; and exploring existing economic and fiscal criteria commonly used for the evaluation and implementation of energy use reduction and energy generation strategies.

## Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met via a hookup to the existing electricity grid. Project construction would not involve the use of natural gas appliances or equipment.

All construction equipment and operation thereof would be regulated per the CARB's In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. In addition, as a means of reducing emissions, construction vehicles are required to become cleaner through the use of renewable energy resources. The In-Use Off-Road Diesel Vehicle Regulation would therefore help to improve fuel efficiency for equipment used in construction of the proposed project. Technological innovations and more stringent standards are constantly being researched nationwide, such as multi-function equipment, hybrid equipment, or other design changes, which could help to further reduce demand on oil and limit emissions associated with construction.

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17 California Energy Commission. *Title 24 2019 Building Energy Efficiency Standards FAQ*. November 2018.
18 City of Oakley. *Strategic Energy Plan*. Fall 2015.

The CARB prepared the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan),[19] which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The regulation described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

## Operational Energy Use

Following implementation of the proposed project, PG&E would provide electricity to the project site. Energy use associated with operation of the proposed project would be typical of residential uses, requiring electricity for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed residential development. It should be noted that, as required by Mitigation Measure VIII-1 in this IS/MND, natural gas infrastructure would be prohibited in the proposed residences.

The proposed project would be subject to all relevant provisions of the most recent update of the CBSC, including the CALGreen Code and the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. As noted previously, pursuant to the CALGreen Code, residential structures three stories or less, including those proposed as part of the project, must include on-site solar energy systems sufficient to meet 100 percent of the residences' electricity demand.

Additionally, the proposed project would be consistent with the goals of the SEP, as the proposed project would comply with the latest CBSC standards regarding energy conservation, renewable energy resources, and green building standards.

With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, as

[19] California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. January 20, 2017.

discussed in Section XVII, Transportation, of this IS/MND, the project site is not anticipated to substantially increase Vehicle Miles Traveled (VMT).

## Conclusion

Based on the above, construction and operations of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Thus, a ***less-than-significant*** impact would occur.

| **VII. GEOLOGY AND SOILS.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | ☐ | ☐ | ✖ | ☐ |
| ii. Strong seismic ground shaking? | ☐ | ☐ | ✖ | ☐ |
| iii. Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ✖ | ☐ |
| iv. Landslides? | ☐ | ☐ | ✖ | ☐ |
| b. Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ✖ | ☐ |
| c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | ☐ | ☐ | ✖ | ☐ |
| d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | ☐ | ☐ | ✖ | ☐ |
| e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | ☐ | ☐ | ☐ | ✖ |
| f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ✖ | ☐ | ☐ |

## Discussion

ai-ii. The project site does not contain any active or potentially active faults, nor is the site located within a State-designated Alquist-Priolo Fault Zone.[20] However, according to the City's General Plan EIR, the City of Oakley is subject to seismic risk because the City is within the San Francisco Bay Area, an area of high seismicity.[21]

Proper engineering of the proposed buildings in compliance with the CBSC would ensure that the proposed project would not be subject to substantial risks related to seismic ground shaking. Projects designed in accordance with the CBSC should be able to: 1) resist minor earthquakes without damage, 2) resist moderate earthquakes without structural damage but with some nonstructural damage, and 3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance

[20] California Geologic Survey. *Seismic Hazard Zone Report for the Brentwood 7.5-Minute Quadrangle, Contra Costa County, California.* 2018.

[21] City of Oakley. *City of Oakley 2020 General Plan Draft Environmental Impact Report* [pg. 3-161]. September 2002.

with the CBSC design standards would be enforced through building plan review and require approval by the City.

Based on the above, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault or strong seismic ground shaking. Thus, a ***less-than-significant*** impact would occur.

aiii,aiv, c,d. The proposed project's potential effects related to liquefaction, subsidence/settlement, landslides, lateral spreading, and expansive soil are discussed in detail below.

## Liquefaction and Subsidence/Settlement

Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes transient loss of strength, which commonly causes ground displacement or ground failure to occur. Because saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths. Additionally, loose unsaturated sandy soils have the potential to settle during strong seismic shaking. Liquefaction can often result in subsidence, which refers to the gradual settling or sudden sinking of land surface, or settlement, which refers to the vertical movement of soil when a load is applied to the surface.

According to the MTC/ABAG Hazard Viewer Map, project site is located within a "High" Earthquake Liquefaction Susceptibility zone.[22] As a result, the potential exists that on-site soils may be subjected to liquefaction, and associated subsidence could occur. However, Oakley Municipal Code Section 6.9.328 requires that as part of obtaining a Grading Permit, an application must be accompanied, among other documents, with three copies of a geotechnical or engineering geology report to excavate and grade the project site. The project's Improvement Plans would be required to be signed by a State-certified civil engineer who prepared the geotechnical report and reviewed to ensure that the plans conform to all recommendations contained in the report. Furthermore, Oakley Municipal Code Section 6.9.702 provides that, upon completion of rough grading work, but before the issuance of building permits, the City Engineer may require that a soil engineering report be prepared certifying the adequacy of the site for the intended use, as affected by soil engineering reports.

Therefore, because compliance with the requirements set forth in Oakley Municipal Code Sections 6.9.328 and 6.9.702 would ensure that all potentially hazardous on-site subsurface soil conditions are identified and addressed in conformance with industry standard recommendations, including potential conditions, the proposed project would not directly or indirectly cause potential substantial adverse effects involving seismic-related ground failure or be located on a geologic unit that would potentially result in on-site or off-site liquefaction or subsidence.

[22] Association of Bay Area Governments. *Hazard Viewer.* Available at: https://abag.ca.gov/our-work/resilience/data-research/hazard-viewer/. Accessed May 2022.

## Landslides

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. The project site is relatively flat and is not located near any slopes. Therefore, the proposed project would not be subject to landslide risks and would not expose people or structures to potential risk of loss, injury, or death involving landslides.

## Lateral Spreading

Lateral spreading involves horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. Given that the project site does not contain, and is not adjacent to, any free faces including excavations, channels, or open bodies of water, lateral spreading would not present a likely hazard at the site.

## Expansive Soils

Expansive soils can undergo significant volume changes with variations in moisture content. Specifically, such soils shrink and harden when dried and expand and soften when wetted. If structures are underlain by expansive soils, foundation systems must be capable of withstanding the potential damaging movements of the soil.

Pursuant to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the project site is comprised of two primary soil types. Approximately 90 percent of the project site is comprised of Sycamore silty clay loam with 0 to 2 percent slopes, which has a shrink-swell numerical rating of 0.12. The remaining approximately 10 percent of the project site is comprised of Sorrento silty clay loam, which has a shrink-swell numerical rating of 0.50. The numerical ratings indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00). Therefore, the potential exists for expansive soils to exist on site and adversely affect the proposed project. However, as detailed above, the proposed project would be subject to Oakley Municipal Code Sections 6.9.328 and 6.9.792, which would ensure on-site expansive soils are identified and addressed in accordance with industry standard recommendations set forth by a State-certified civil engineer, prior to the issuance of a Building Permit. Compliance with such would ensure that adverse effects do not occur within the project site.

## Conclusion

Based on the above, impacts related to seismic-related ground failure, landslides, or lateral spreading are not anticipated to occur. Through compliance with all applicable regulations, including those set forth by Oakley Municipal Code Sections 6.9.328 and 6.9.792, impacts related to liquefaction, subsidence/settlement, and expansive soils would not occur. Thus, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction, or landslides, would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse, and would not be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. Thus, a ***less-than-significant*** impact would occur.

b. During construction activities, topsoil would be exposed following site grading and prior to constructing building foundations. As a result, the potential for topsoil erosion would exist. Following development of the site, all exposed soils would be covered with impervious surfaces or landscaping and, thus, the potential for erosion to occur would not exist long-term.

As discussed further under questions 'ci' and 'ciii' in Section X, Hydrology and Water Quality, of this IS/MND, pursuant to the City of Oakley Municipal Code Sections 6.9.308 and 6.11.212, preparation of an Erosion Control Plan and Stormwater Pollution Prevention Plan (SWPPP) prior to construction activities and implementation of Best Management Practices (BMPs) during construction is required. The erosion control measures required by both the SWPPP and the Erosion Control Plan would ensure that the proposed project would not result in substantial erosion or the loss of topsoil. Therefore, the proposed project would not result in substantial soil erosion or the loss of topsoil, and a ***less-than-significant*** impact would occur.

e. The proposed project would connect to existing City sewer services. Thus, the construction or operation of septic tanks or other alternative wastewater disposal systems would not be included as part of the project. Therefore, ***no impact*** regarding the capability of soil to adequately support the use of septic tanks or alternative wastewater disposal systems would occur.

f. The City's General Plan does not note the existence of any unique geologic features within the City. Consequently, implementation of the proposed project is not anticipated to result in direct or indirect destruction of unique geologic features.

The City's General Plan indicates that few paleontological resources are known to occur within the City Planning Area.[23] In addition, portions of the surrounding area are developed and paleontological resources have not been encountered in the vicinity. Thus, existing paleontological resources are not expected to occur on the site. Nonetheless, the potential exists for previously unknown paleontological resources could exist within the project site. Ground-disturbing activity such as grading, trenching, or excavating associated with implementation of the proposed project would have the potential to disturb or destroy such resources if present. Therefore, the proposed project could result in the direct or indirect destruction of a unique paleontological resource, and a ***potentially significant*** impact could occur.

## Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

*VII-1. Implement Mitigation Measures V-2 and V-3.*

[23] City of Oakley. *City of Oakley General Plan* [pg. 6-19]. Adopted January 11, 2022.

| **VIII. GREENHOUSE GAS EMISSIONS.** *Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☐ | ✖ | ☐ | ☐ |
| b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses? | ☐ | ✖ | ☐ | ☐ |

## Discussion

a,b. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide ($CO_2$) and, to a lesser extent, other GHG pollutants, such as methane ($CH_4$) and nitrous oxide ($N_2O$) associated with area sources, mobile sources or vehicles, utilities (electricity), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of $CO_2$ equivalents ($MTCO_2e$/yr).

The proposed project is located within the jurisdictional boundaries of BAAQMD. While updated CEQA Guidelines have not yet been released, on April 20, 2022, the BAAQMD Board of Directors held a public meeting and adopted proposed CEQA Thresholds for Evaluating the Significance of Climate Change Impacts from Land Use Projects and Plans.[24] The updated GHG thresholds address more recent climate change legislation, including Senate Bill (SB) 32, and provide qualitative thresholds related to Buildings and Transportation.

Based on the modeling conducted for the proposed project, as discussed in Section III, Air Quality, of this IS/MND, operational GHG emissions are presented in Table 4. However, as noted previously, the BAAQMD's applicable threshold of significance for GHG emissions are qualitative, and the foregoing information is provided for disclosure purposes only. Potential impacts related to GHG emissions resulting from implementation of the proposed project are considered in comparison with BAAQMD's adopted thresholds of significance below.

[24] Bay Area Air Quality Management District. *CEQA Thresholds and Guidelines Update.* Available at: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Accessed August 2022.

**Table 4**
**Unmitigated Operational GHG Emissions**

| Source | GHG Emissions ($MTCO_2e$/yr) |
|---|---|
| *Mobile* | *1,020.00* |
| *Area* | *2.28* |
| *Energy* | *234.00* |
| *Water* | *11.60* |
| *Waste* | *5.76* |
| *Refrigerants* | *0.18* |
| Total Operational GHG Emissions | 1,273.82 |
| Operational GHG Emissions per Capita | 4.83 $MTCO_2e$/yr/capita |

Note: Operational GHG Emissions per Capita = $MTCO_2e$/yr / 264 residents.

***Source: CalEEMod, September 2022 (see Appendix A).***

## BAAQMD Thresholds of Significance

As discussed above, on April 20, 2022, the BAAQMD Board of Directors held a public meeting and adopted proposed CEQA Thresholds for Evaluating the Significance of Climate Change Impacts from Land Use Projects and Plans. According to the new thresholds of significance, a project must either include specific project design elements (e.g., exclude use of natural gas, achieve a specific reduction in project-generated VMT below the regional average) or be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).[25]

The City of Oakley does not have a GHG reduction strategy under CEQA Guidelines Section 15183.5(b). Therefore, the following analysis focuses on the new BAAQMD GHG thresholds related to specific project design elements.

According to the BAAQMD's thresholds of significance, in order to find a less-than-significant GHG impact, projects must include, at a minimum, the following project design elements:

- The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development);
- The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines;
- The project will achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA; and
- The project will achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

In order to be consistent with the first criterion, the proposed project would be required to include all electric appliances and plumbing. Mitigation would be required to ensure that

[25] Bay Area Air Quality Management District. *CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans*. April 2022.

the proposed project would not include the use of natural gas appliances or natural gas plumbing and, thus, would comply with the first criterion.

Regarding the second criterion, as discussed in Section VI, Energy, of this IS/MND, the proposed project would comply with all applicable federal, State, and local regulations regarding energy use during both project construction and project operations. Required compliance with applicable standards and regulations ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary.

With respect to the third criterion, as discussed in Section XVII, Transportation, of this IS/MND, the citywide VMT per capita was calculated to be 26.76, and, as a result, the impact threshold of 15 percent below the Citywide average VMT per capita equates to 22.75 VMT per capita. The project is projected to generate VMT per capita of 22.06. Therefore, the project would achieve a 15 percent reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan.

With respect to the fourth criterion, the proposed project would be subject to the single-family residential requirements set forth in the CALGreen standards. Per the 2019 CALGreen Code, single-family residential projects are required to install a listed raceway to accommodate a dedicated 208/240-volt branch circuit for each unit, which would be suitable for EV charging. Compliance with this requirement would be sufficient to comply with the Tier 2 CALGreen standards, as required by BAAQMD.

## Conclusion

Based on the above, without the implementation of mitigation, the project may not comply with the BAAQMD's required thresholds of significance. Therefore, the proposed project could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Thus, a ***potentially significant*** impact could occur.

### Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

*VIII-1.* *Consistent with the BAAQMD's thresholds of significance, prior to issuance of building permits for the proposed project, the project applicant shall demonstrate via project design and/or notation included on project design that natural gas infrastructure shall be prohibited.*

*Conformance with the foregoing requirement shall be confirmed through review and approval of building permit plans by the City of Oakley Planning Division.*

| **IX. HAZARDS AND HAZARDOUS MATERIALS.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☐ | ☐ | ✖ | ☐ |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment? | ☐ | ✖ | ☐ | ☐ |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☐ | ✖ |
| d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ☐ | ✖ |
| e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | ☐ | ☐ | ☐ | ✖ |
| f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ✖ | ☐ |
| g. Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires? | ☐ | ☐ | ✖ | ☐ |

## Discussion

a. A significant hazard to the public or the environment could result from the routine transport, use, or disposal of hazardous materials. Future operations of the proposed residences on the project site could involve the use of common household cleaning products, fertilizers, and herbicides on-site, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the amount that could reasonably be used on the site, routine use of such products would not represent a substantial risk to public health or the environment. Therefore, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a ***less-than-significant*** impact would occur.

b. A development project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment should a site contain potential Recognized Environmental Conditions (RECs) that are not properly addressed prior to project implementation. A REC indicates the presence or likely presence of any hazardous

substances in, on, or at a property due to any release into the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment.[26]

Based on a review of historic aerial photographs, the project site was previously used as agricultural land. As a result, the potential exists that organochlorine and arsenic pesticide residues may be present within surficial soils. If such materials are present in on-site soils, a potential health hazard could occur during project construction.

Additionally, as noted in the Cultural Resources Study prepared for the proposed project, the on-site farm buildings date to at least the nearly 1940s. As the buildings were built prior to the federal ban on materials such as lead-based paint (LBP) and/or asbestos containing materials, the potential exists for such materials to exist on and/or within the structures. LBP is defined as any paint, varnish, stain, or other applied coating that has one milligram per cubic centimeter or greater (5,000 micrograms per gram or 5,000 parts per million) of lead by federal guidelines. Lead is a highly toxic material that may cause a range of serious illnesses, and in some cases death. In buildings constructed after 1978, LBP is unlikely to be present. Structures built prior to 1978 and especially prior to the 1960s should be expected to contain LBP. Asbestos is the name for a group of naturally occurring silicate minerals that are considered to be “fibrous” and, through processing, can be separated into smaller and smaller fibers. When inhaled, the material caused serious illness. For buildings constructed prior to 1980, the Code of Federal Regulations (29 CFR 1926.1101) states that all thermal system insulation (boiler insulation, pipe lagging, and related materials) and surface materials must be designated as “presumed asbestos-containing material” unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act. Asbestos-containing materials could include, but are not limited to, plaster, ceiling tiles, thermal systems insulation, floor tiles, vinyl sheet flooring, adhesives, and roofing materials. Therefore, demolition of the on-site structures could present a potential hazard risk related to LBP or asbestos.

Finally, although not observed during the review of aerial photographs, the potential exists that buried items, such as a septic system or well used for agricultural irrigation, may exist on-site due to the relative age of the farmhouse and auxiliary structures. As such, if buried items, such as septic systems or wells are to be discovered during project development, the buried items must be removed in accordance with County and State regulations prior to development of the proposed project.

Based on the above, potentially hazardous conditions could occur if pesticide residuals are present in on-site soils, if the on-site buildings contain LPB or asbestos, or if existing wells or septic systems are present on-site and are not removed in accordance with County and State regulations. Therefore, without mitigation, the proposed project could create a significant hazard to the public or the environment, and a ***potentially significant*** impact could occur.

## Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

[26] ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* 2013.

*IX-1. Prior to initiation of ground-disturbing activities, the project applicant shall complete testing of on-site soils for organochlorine pesticides (OCPs) and arsenic in accordance with U.S. Environmental Protection Agency (USEPA) Method 8081A. In the event that soil is determined to be hazardous by exceeding the USEPA Regional Screening Level for residential exposure scenarios, the soil shall be transported and disposed of at a Class I facility permitted by the California Department of Toxic Substances Control. Hazardous waste shall be transported to disposal by a licensed hazardous waste hauler under a uniform hazardous waste manifest. The results of soil sampling and analysis, as well as verification of proper remediation and disposal, if warranted, shall be submitted to the City's Planning Division for review and approval.*

*IX-2. Prior to issuance of a demolition permit by the City for any on-site structures, the project applicant shall provide a site assessment that determines whether any structures to be demolished contain asbestos-containing materials (ACMs) or lead-based paint (LBP). If the on-site structures do not contain either of the foregoing materials, further mitigation is not required; however, if ACMs or LBP are identified, the materials shall be removed and disposed of by a licensed and certified contractor in accordance with California Air Resources Board recommendations and OSHA requirements. Work practice standards generally include appropriate precautions to protect construction workers and the surrounding community, and appropriate disposal methods for construction waste in accordance with federal, State, and local regulations. The results of the site assessment, as well as verification of proper disposal, if warranted, shall be submitted to the City's Planning Division for review and approval.*

*IX-3. During ground-disturbing activities, if one or more wells and/or septic systems are identified on-site, the project applicant shall hire a licensed contractor to obtain the applicable abandonment permit from Contra Costa County Environmental Health Division (CCCEHD), and properly abandon the on-site wells and/or septic systems for review and approval by the CCCEHD and the City's Planning Division.*

c. The nearest schools relative to the project site are Iron House Elementary School and Delta Vista Middle School, which are both located 0.66-mile northwest of the site, and Faith Christian School, which is located approximately 0.90-mile southwest of the site. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, and ***no impact*** would occur.

d. According to the State Water Resources Control Board's (SWRCB) GeoTracker data management system, hazardous materials sites, including leaking underground storage tank (LUST) sites and Department of Toxic Substances Control (DTSC) cleanup sites, have not been identified on or within a 1,000-foot radius of the project site.[27] In addition, the project site is not located on or near any hazardous waste sites identified on the

[27] State Water Resources Control Board. *GeoTracker.* Available at: https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=oakley+california. Accessed May 2022.

Envirostor's Hazardous Waste and Substance Site List, which is compiled pursuant to Government Code Section 65962.5.[28]

Based on the above, the proposed project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As such, ***no impact*** would occur.

e. The nearest airport to the project site is the Byron Airport, located approximately 10.40 miles southeast of the project site. Therefore, the project site is not located within two miles of any public airports and does not fall within an airport land use plan area. Accordingly, ***no impact*** would occur related to a safety hazard or excessive noise for people residing or working in the project area.

f. During construction of the proposed project, all construction equipment would be staged on-site so as to prevent obstruction of local and regional travel routes in the City that could be used as evacuation routes during emergency events. For construction of the off-site improvements, travel along Sellers Avenue could be intermittently restricted. However, with implementation of the Traffic Control Plan required by Mitigation Measure XVII-1, vehicle travel would not be obstructed, and evacuation routes would remain open throughout the construction period.

During operation, the proposed project would provide adequate access for emergency vehicles and would not interfere with potential evacuation or response routes used by emergency response teams. In addition, all proposed internal roadways would accommodate emergency vehicles.

Overall, the proposed project would not substantially alter the existing circulation system in the surrounding area. As a result, the proposed project would have a ***less-than-significant*** impact with respect to impairing the implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan.

g. According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the project site is not located within a Very High or High Fire Hazard Severity Zone (FHSZ).[29] Furthermore, the existing roadways in the project vicinity would act as fire breaks and would reduce the risk for the uncontrolled spread of wildland fires. Therefore, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, and a ***less-than-significant*** impact would occur.

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[28] Department of Toxic Substances Control. *Hazardous Waste and Substances Site List*. Available at: https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29. Accessed May 2022.

[29] California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. January 7, 2009.

| **X. HYDROLOGY AND WATER QUALITY.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? | ☐ | ☐ | ✖ | ☐ |
| b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | ☐ | ☐ | ✖ | ☐ |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: | | | | |
| i. Result in substantial erosion or siltation on- or off-site; | ☐ | ☐ | ✖ | ☐ |
| ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; | ☐ | ☐ | ✖ | ☐ |
| iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or | ☐ | ☐ | ✖ | ☐ |
| iv. Impede or redirect flood flows? | ☐ | ☐ | ✖ | ☐ |
| d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | ☐ | ☐ | ☐ | ✖ |
| e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☐ | ✖ | ☐ |

## Discussion

a, ci-ciii. The following discussion provides a summary of the proposed project's potential to violate water quality standards/waste discharge requirements, alter the drainage pattern of the site resulting in erosion or siltation, increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or otherwise degrade water quality during construction and operation.

### Construction

During the early stages of construction activities, topsoil would be exposed due to grading and excavation of the site. After grading and prior to overlaying the ground with impervious surfaces and structures, the potential exists for wind and water to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality.

The SWRCB regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in land disturbance of one or more acres. The City's National Pollutant Discharge Elimination System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior

to receipt of any construction permits. The State's General Construction Permit requires a SWPPP to be prepared for the site. A SWPPP describes BMPs to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project. Because the proposed project would disturb greater than one acre of land, the proposed project would be subject to the requirements of the State's General Construction Permit and, with implementation of the required SWPPP and BMPs included therein, construction of the proposed project would not result in a violation of water quality standards and/or degradation of water quality.

Furthermore, per Municipal Code Sections 6.9.306 and 6.9.404, the proposed project would be required to submit an erosion and sediment control plan with submittal of the grading permit application to ensure water quality is not degraded. The plan would include erosion and sediment control measures that would be implemented during grading and would be approved by the City Engineer. Given the required submittal and approval of a SWPPP and erosion and sediment control plan, the proposed project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality during construction.

### Operations

Following project buildout, the surface of the site would be covered with either impervious surfaces or landscaped areas, and topsoil would no longer be exposed. As such, the potential for erosion and associated impacts to water quality would be reduced. However, the addition of impervious surfaces on the site would result in the generation of urban runoff during project operations, which could contain pollutants if the runoff comes into contact with vehicle fluids on parking surfaces and/or landscape fertilizers and herbicides. All municipalities within Contra Costa County (and the County itself) are required to develop more restrictive surface water control standards for new development projects as part of the renewal of the Countywide NPDES permit.

The City of Oakley has adopted the County C.3 Stormwater Standards, which require new development and redevelopment projects that create or alter 10,000 sf or more of impervious area to contain and treat all stormwater runoff from the project site. The proposed project would include 369,190 sf of new impervious area; therefore, the proposed project would be subject to the County C.3 Stormwater Standards.[30] The proposed project would also be subject to the requirements of the SWRCB and the Regional Water Quality Control Board (RWQCB), as well as the County C.3 Standards, which are included in the City's NPDES General Permit. In addition, the proposed project would adhere to Title 6, Chapter 11, of the Municipal Code, which establishes standards for stormwater management and discharge.[31] Prior to issuance of a building permit, the applicant would submit a Stormwater Control Plan (SWCP) that meets the criteria in the most recent version of the Contra Costa Clean Water Program Stormwater C.3 Guidebook. Compliance with such requirements would ensure that impacts to water quality standards or waste discharge requirements would not occur during operation of the proposed project.

A Preliminary Stormwater Control Plan has been prepared for the proposed project (see Figure 6). Runoff from impervious surfaces within the project site would be directed to new catch basins within the internal roads. From the catch basins, new storm drain lines

[30] MLC Holdings, Inc. *DeJesus Property Preliminary Stormwater Control Plan.* December 2021.
[31] City of Oakley. *Oakley Municipal Code* [Title 6, Chapter 11]. Updated February 23, 2021.

ranging in diameters of 12, 15, 18, and 24-inches would convey flows to the bioretention area located in the northwest portion of the site which would accommodate runoff from all 77 residential lots as well as the internal roadways on-site. The drainage management area (DMA) would be designed according to the criteria in the Contra Costa County Clean Water Program *Stormwater C.3 Guidebook*. Therefore, the proposed project would not adversely affect surface water quality. The on-site bioretention area would accommodate runoff from all residential lots and roadways on-site and would be designed according to the criteria in the Contra Costa County Clean Water Program *Stormwater C.3 Guidebook*. In order to adequately treat all runoff from the project site, the project would be required to provide 47,112 cubic feet (CF) of water treatment volume. The proposed infiltration basin would provide 47,112 CF of treatment volume and, thus, the project would meet the requirements and all runoff would be adequately treated on-site.

### Conclusion

Based on the above, given compliance with the City's Municipal Code and existing County regulations, impacts related to water quality would not occur during project construction or operations. Thus, the proposed project would not violate water quality standards/waste discharge requirement, alter the drainage pattern of the site resulting in erosion or siltation, increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or otherwise degrade water quality during construction, and a ***less-than-significant*** impact would occur.

b,e. Potable water service for the proposed project would be provided by the DWD. According to the DWD's 2020 Urban Water Management Plan (UWMP), the primary water supply for distribution is treated surface water.[32] As a result, any increase in water demand associated with the proposed project would be primarily met through surface water supply, rather than groundwater.

The DWD operates a groundwater supply system that currently consists of groundwater extracted from two wells in Oakley, which is then conveyed in a dedicated well supply pipeline to a blending facility. According to the DWD 2020 UWMP, the wells are connected to the East Contra Costa Subbasin underlying the City. The East Contra Costa Subbasin has been designated as a medium-priority basin by the Department of Water Resources, and is not in overdraft conditions.[33]

The project site represents a relatively small area compared to the overall surface area of the East Contra Costa Subbasin. In addition, runoff from the proposed impervious surfaces would be directed to a bioretention facility where runoff water would percolate and recharge the East Contra Costa Subbasin. Therefore, any new impervious surfaces associated with the proposed project would not interfere substantially with groundwater recharge within the East Contra Costa Subbasin.

Based on the above, the proposed project would result in a ***less-than-significant*** impact with respect to substantially decreasing groundwater supplies, interfering substantially with groundwater recharge, or conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan.

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32 Diablo Water District. *2020 Urban Water Management Plan.* May 2022.
33 *Ibid*.

civ. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the project site, the project site is located within the 500-year floodplain (Zone X), which is not designated as a Special Flood Hazard Area.[34] Additionally, pursuant to Municipal Code Section 6.12.138(e), the project would be required to provide adequate draining to reduce flood hazards. Thus, the project would not impede or redirect flood flows, resulting in a ***less-than-significant*** impact.

d. Tsunamis are defined as sea waves created by undersea fault movement, whereas a seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. The project site is located 48.7 miles from the California coastline and approximately 2.08 miles south of the San Francisco Bay tributaries. Given the distance to the San Francisco Bay tributaries, it is not anticipated that the project site would be affected by flooding risks associated with tsunamis. Furthermore, seiches do not pose a risk to the proposed project because the project site is not located adjacent to a large, closed body of water. As such, the proposed project would not result in a risk related to the release of pollutants due to project inundation flooding, tsunami, or seiche, and ***no impact*** would occur.

[34] Federal Emergency Management Agency. *Flood Insurance Rate Map 06013C0355G.* Effective May 18, 2022.

| **XI. LAND USE AND PLANNING.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Physically divide an established community? | ☐ | ☐ | ✖ | ☐ |
| b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ✖ | ☐ |

## Discussion

a. A project risks dividing an established community if the project would introduce infrastructure or alter a land use so as to change the land use conditions in the surrounding community or isolate an existing land use. Currently, the 20.42-acre project site consists of primarily undeveloped ruderal grassland, with the exception of one farmhouse structure and two ancillary buildings in the northern portion of the site.

Surrounding existing land uses include scattered rural residences with small-scale agricultural uses to the north, south, and east. The BNSF railroad tracks bound the western border of the property, and single-family residences are located further west beyond the BNSF railroad tracks. The City of Oakley General Plan designates the project site as RL and the site is zoned P-1. Thus, development of the site with the proposed uses was generally evaluated as part of the City's General Plan EIR and Update IS/ND.

The proposed project would be a continuation of the surrounding development and would not isolate an existing land use. As such, the proposed project would not physically divide an established community and a ***less-than-significant*** impact would occur.

b. The project site is currently designated RL by the City's General Plan and is zoned P-1. Therefore, single-family residential development has been anticipated at the project site. As demonstrated throughout this IS/MND, the proposed project would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect. For example, in compliance with the ECCCHCP/NCCP, the proposed project would be subject to pay all applicable fees according to the Fee Zone Map of the ECCCHCP/NCP prior to construction, and would be required to complete pre-construction surveys for western burrowing owl, Swainson's hawk, golden eagle, and migratory birds.

Based on the above, the proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and a ***less-than-significant*** impact would occur.

| **XII. MINERAL RESOURCES.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ☐ | ☐ | ☐ | ✖ |
| b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | ☐ | ☐ | ☐ | ✖ |

## Discussion

a,b. The City of Oakley General Plan EIR states that the only viable mineral resource currently mined in the City of Oakley is sand.[35] In addition, the General Plan does not identify any known mineral resource areas within the Planning Area, including the project site. Furthermore, because the site is located near residential development, the site would not be suitable for mining operations. Thus, the proposed project would not result in the loss of availability of a known mineral resource or a locally important mineral recovery site, and the proposed project would result in ***no impact*** related to mineral resources.

[35] City of Oakley. *City of Oakley 2020 General Plan Draft Environmental Impact Report* [pg. 278]. September 2002.

| **XIII. NOISE.** *Would the project result in:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ✖ | ☐ | ☐ |
| b. Generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ✖ | ☐ |
| c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ✖ |

## Discussion

a. The following discussion presents information regarding noise standards and criteria applicable to various land uses, as well as sensitive noise receptors in proximity to the project site and the potential for the proposed project to result in impacts during project construction and operation. The following terms are referenced in the sections below:

- Decibel (dB): A unit of sound energy intensity. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to decibels in this report will be A-weighted unless noted otherwise.
- Day-Night Average Level ($L_{dn}$): The average sound level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours.
- Equivalent Sound Level ($L_{eq}$): The average sound level over a given time-period.
- Maximum Sound Level ($L_{max}$): The maximum sound level over a given time-period.
- Median Sound Level ($L_{50}$): The sound level exceeded 50 percent of the time over a given time-period.
- Community Noise Equivalent Level (CNEL): The 24-hour average noise level with noise occurring during evening (7:00 PM to 10:00 PM) hours weighted by a factor of three and nighttime hours weighted by a factor of ten prior to averaging.

### Sensitive Noise Receptors

Some land uses are considered more sensitive to noise than others, and, thus, are referred to as sensitive noise receptors. Land uses often associated with sensitive noise receptors generally include residences, schools, libraries, hospitals and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise. The nearest sensitive uses include the single-family residences located to the west, across the BNSF tracks, and the scattered rural residences to the north, east, and south of the project site boundary. The closest residential unit is located approximately 55 feet south of the project site boundary. The closest receptor to the off-site improvement area is located approximately 30 feet west of where construction would occur.

## Existing Noise Environment

The existing noise environment in the project area is primarily defined by traffic on Sellers Avenue directly east of the project site and the BNSF railroad directly west of the project site. To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted a continuous (24-hour) noise level measurement on the project site. The noise measurement location is shown on Figure 8. A summary of the noise level measurement survey result is provided in Table 5.

**Table 5**
**Summary of Existing Background Noise Measurement Data**

| Site | Date | $L_{dn}$ | Daytime | | | Nighttime | | |
|---|---|---|---|---|---|---|---|---|
| | | | $L_{eq}$ | $L_{50}$ | $L_{max}$ | $L_{eq}$ | $L_{50}$ | $L_{max}$ |
| LT-1 | 6/7/2022 | 69 | 66 | 44 | 84 | 62 | 39 | 61 |

Notes:
- All values shown in dBA
- Daytime hours: 7:00 AM to 10:00 PM
- Nighttime Hours: 10:00 PM to 7:00 AM

***Source: Saxelby Acoustics. 2022.***

## Standards of Significance

The City of Oakley General Plan Noise Element establishes a noise level standard of 60 dB as normally acceptable at residential land uses. Based upon General Plan Figure 9-1, an ambient noise level of 60 dBA $L_{dn}$ is considered normally acceptable for single-family residential uses. Policy 9.1.6 in the City's General Plan is summarized in Table 6.

**Table 6**
**Significance of Changes in Noise Exposure**

| Ambient Noise Level Without Project, $L_{dn}$ | Increase Required for Significant Impact |
|---|---|
| <60 dB | +5.0 dB or more |
| 60-65 dB | +3.0 dB or more |
| >65 dB | +1.5 dB or more |

***Source: City of Oakley General Plan Noise Element, 2002.***

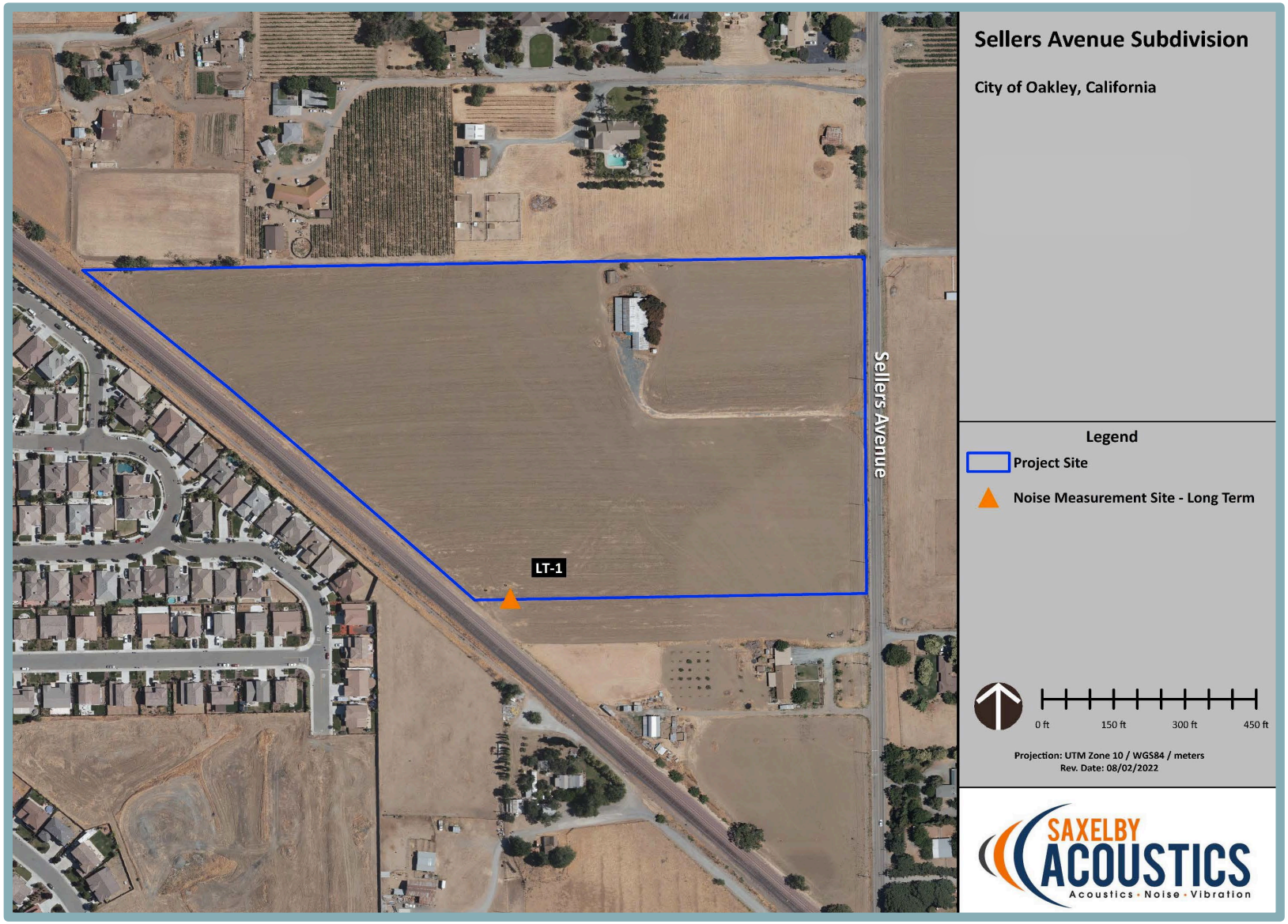
Per the City's General Plan, with regard to non-transportation noise, exterior noise levels at residences should not exceed 55 dBA during daytime hours (7:00 AM to 10:00 PM) and 45 dBA during nighttime hours (10:00 PM to 7:00 AM).

The following sections use the aforementioned thresholds of significance to determine if noise impacts associated with construction and operation of the proposed project would occur.

## Construction Noise

During construction of the proposed project, heavy-duty equipment would be used for demolition, grading, excavation, paving, and building construction, which would result in temporary noise level increases. Standard construction equipment, such as backhoes, dozers, and dump trucks would be used on-site. Project haul truck traffic on local roadways would also result in a temporary noise level increase during construction activities.

**Figure 8**
**Noise Measurement Site**



Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on the proximity of construction activities to that point. Construction activities would be temporary in nature and are anticipated to occur during normal daytime hours. Section 4.2.208 of the Municipal Code restricts noise-producing construction activities to weekday hours between 7:30 AM and 7:00 PM Monday through Friday, and from 9:00 AM to 7:00 PM on weekends.

Table 7 shows the predicted construction noise levels for development of the proposed project.

**Table 7**
**Construction Equipment Noise**

| Type of Equipment | Maximum Level, dB at 50 feet |
|---|---|
| Auger Drill Rig | 84 |
| Backhoe | 78 |
| Compactor | 83 |
| Compressor (air) | 78 |
| Concrete Saw | 90 |
| Dozer | 82 |
| Dump Truck | 76 |
| Excavator | 81 |
| Generator | 81 |
| Jackhammer | 89 |
| Pneumatic Tools | 85 |

***Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.***

Based on the table, activities involved in typical construction would generate maximum noise levels up to 90 dB at a distance of 50 feet. The nearest single-family residence to the site is located approximately 55 feet south of the proposed construction area. Because the nearest single-family residences are located greater than 50 feet away from the project site, sensitive receptors would be exposed to noise levels less than 90 dB during construction.

However, the nearest receptors to the off-site improvement area are located within 50 feet of the construction area and, as a result, could be exposed to noise levels in excess of 90 dB. As such, although construction activities are temporary in nature and would likely occur during normal daytime working hours, construction-related noise could result in a potentially significant increase in noise levels at existing noise-sensitive land uses in the vicinity of the construction. Therefore, impacts resulting from noise levels temporarily exceeding the threshold of significance due to construction could be considered potentially significant.

## Operational Noise

Noise generated during operations of the proposed project would be limited to residential noise and traffic noise, as discussed in further detail below.

### Residential Noise

Operation of the proposed project would include typical residential noise, such as landscaping maintenance and HVAC systems, which would be compatible with the adjacent existing residential uses. Assuming the project HVAC systems and maintenance

equipment would be in normal working order, the proposed project is not anticipated to contribute a measurable operational noise level increase to the existing ambient noise environment at any sensitive receptor locations. Therefore, a less-than-significant impact would occur with regard to on-site operational noise.

### Traffic Noise

Operations associated with the proposed project would generate noise associated with vehicle traffic on local roadways. To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels were predicted at sensitive receptors for Existing and Existing Plus Project conditions. Noise levels due to traffic were calculated using the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) and trip generation estimates from the project traffic consultant (TJKM). Table 8 summarizes traffic noise levels at the nearest sensitive receptors along each roadway segment in the project vicinity.

**Table 8**
**Existing Traffic Noise Levels and**
**Project-Related Traffic Noise Level Increases**

| Roadway | Segment | Predicted Exterior Noise Level at Closest Sensitive Receptors (dBA $L_{dn}$) | | |
|---|---|---|---|---|
| | | Existing No Project | Existing + Project | Change |
| Sellers Ave. | E Cypress Rd. To Laurel Rd. | 60.7 | 61.4 | 0.7 |
| W Cypress Rd. | Main St. to Sellers Ave. | 66.3 | 66.7 | 0.4 |
| Sellers Ave. | Project Access #2 to Delta Rd. | 54.4 | 54.5 | 0.1 |
| Delta Rd. | Main St. to Sellers Ave. | 63.9 | 64.1 | 0.2 |
| Main St. | W Cypress Rd. to Laurel Rd. | 57.9 | 58.1 | 0.2 |
| Laurel Rd. | West of Main St. | 56.8 | 57.1 | 0.3 |
| Delta Rd. | Main St. to Sellers Ave | 61.7 | 61.7 | 0.0 |
| Main St. | Laurel Rd. to Delta Rd. | 64.1 | 64.1 | 0.0 |

***Source: Saxelby Acoustics, 2022.***

Based upon the table, the proposed project is predicted to result in a maximum increase in traffic noise levels of 0.7 dBA.

Based upon the Table 6 criteria, where existing traffic noise levels are greater than 65 dB $L_{dn}$, at the outdoor activity areas of noise-sensitive uses, a +1.5 dB $L_{dn}$ increase in roadway noise levels would be considered significant. As shown in Table 5, the existing noise level in the project vicinity is 69 dB $L_{dn}$. Therefore, the maximum increase in traffic noise of 0.7 dBA would not exceed the 1.5 dB threshold of significance, and the increase in traffic noise levels associated with implementation of the proposed project is not considered to be significant.

## Noise at Proposed Sensitive Receptors

It should be noted that impacts of the environment on a project (as opposed to impacts of a project on the environment) are beyond the scope of required CEQA review. “[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project.” (*Ballona Wetlands Land Trust v. City of Los Angeles,* (2011) 201 Cal.App.4th 455, 473 (*Ballona*). The California Supreme Court recently held that “CEQA does not generally require an agency to consider the

effects of existing environmental conditions on a proposed project's future users or residents. What CEQA does mandate…is an analysis of how a project might exacerbate existing environmental hazards." (*California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 392; see also *Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 197 ["identifying the effects on the project and its users of locating the project in a particular environmental setting is neither consistent with CEQA's legislative purpose nor required by the CEQA statutes"], quoting *Ballona*, *supra*, 201 Cal.App.4th at p. 474.).

Based on the above, for the purposes of the CEQA analysis, the relevant inquiry is not whether residents at the proposed single-family homes would be exposed to pre-existing environmental noise-related hazards, but instead whether project-generated noise will exacerbate the pre-existing conditions. Although the analysis of a project's existing noise environment is not required for CEQA purposes, such analysis is included in this document to evaluate compliance with applicable General Plan standards.

As shown in Figure 9, the proposed project would be exposed to exterior noise levels exceeding the City of Oakley's 65 dBA $L_{eq}$ limit for outdoor activity areas of new residential uses. As a result, the City would require the following condition of project approval, which would reduce outdoor noise levels to below the 65 dBA threshold:

- Prior to approval of project improvement plans, the plans for the proposed project shall show that the western project boundary shall be shielded from the adjacent railroad by a 12-foot-tall masonry sound wall and the eastern project boundary shall be shielded from Sellers Avenue by a 6-foot-tall sound walls, subject to approval by the City Engineer. The locations of these barriers are shown in Figure 10. Other types of barriers may be employed but shall be reviewed by an acoustical engineer prior to being constructed. Sound wall heights are assumed to be relative to the higher of the railway/roadway centerlines or building pad elevations and may achieve the wall height through use of earthen berm and wall combinations to achieve the total height.

The maximum noise level at the proposed neighborhood park was estimated to be 63 dBA $L_{dn}$, which would comply with the City's acceptable noise limit of 70 dBA $L_{dn}$. Additionally, standard construction practices provide an exterior-to-interior noise level reduction of approximately 25 dBA. Therefore, where exterior noise levels are 70 dBA $L_{eq}$ or less, additional interior noise control measures are typically not required. For the proposed project, exterior noise levels are predicted to be up to 62 dBA at first floors and 66 dBA $L_{dn}$ at second floors, resulting in an interior noise level of approximately 37 dBA at first floors and 41 dBA $L_{dn}$ at second floors, based on typical building construction, which would meet the City's 45 dBA $L_{dn}$ interior noise level standard for residential uses.

## Conclusion

Based on the above, operation of the proposed project would not result in the generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the City's General Plan and the Municipal Code. However, considering the potential for construction activities to result in temporary increases in noise levels in the project area in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, a ***potentially significant*** impact could occur.

**Figure 9**
**Future Transportation Noise Contours (dBA $L_{dn}$)**

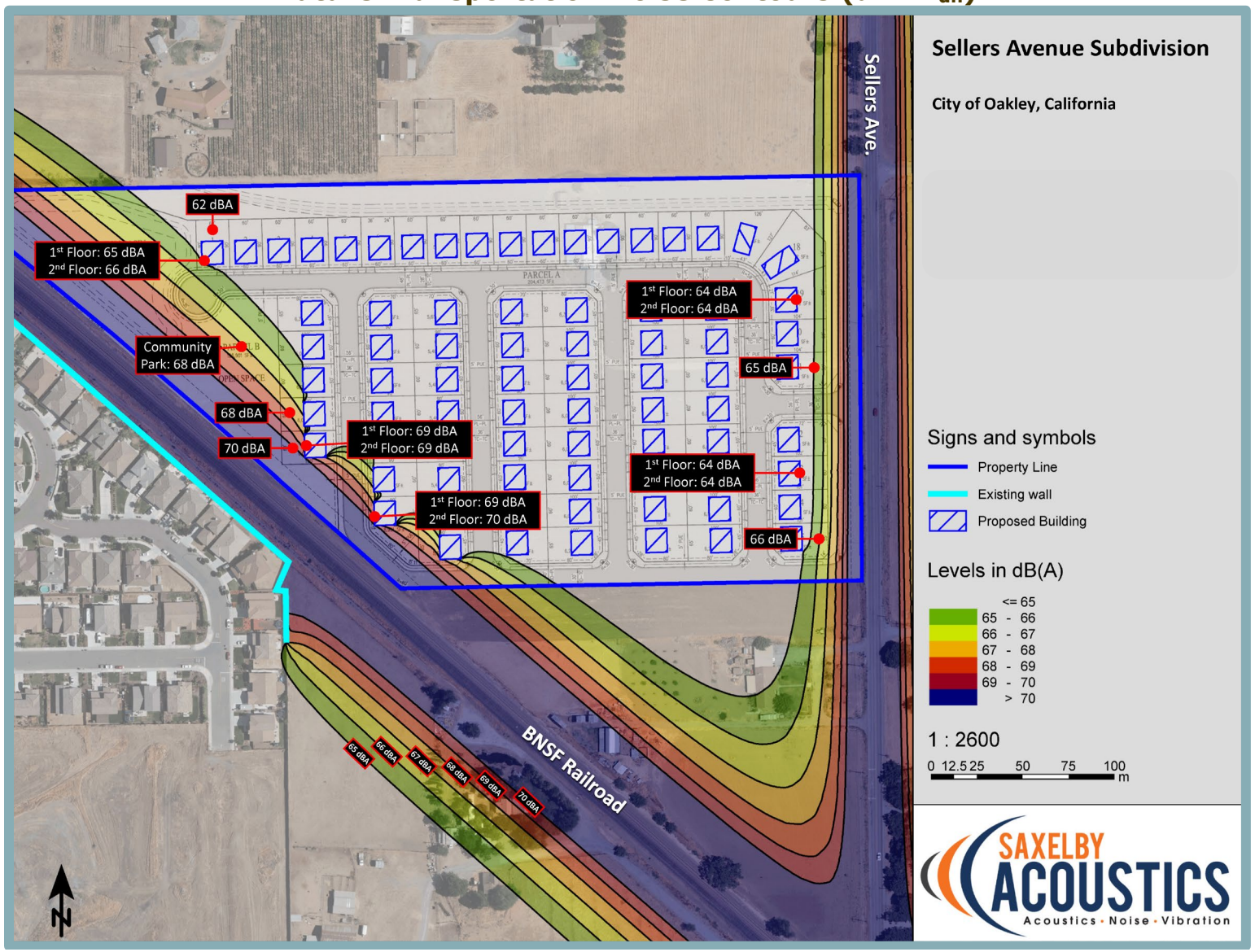
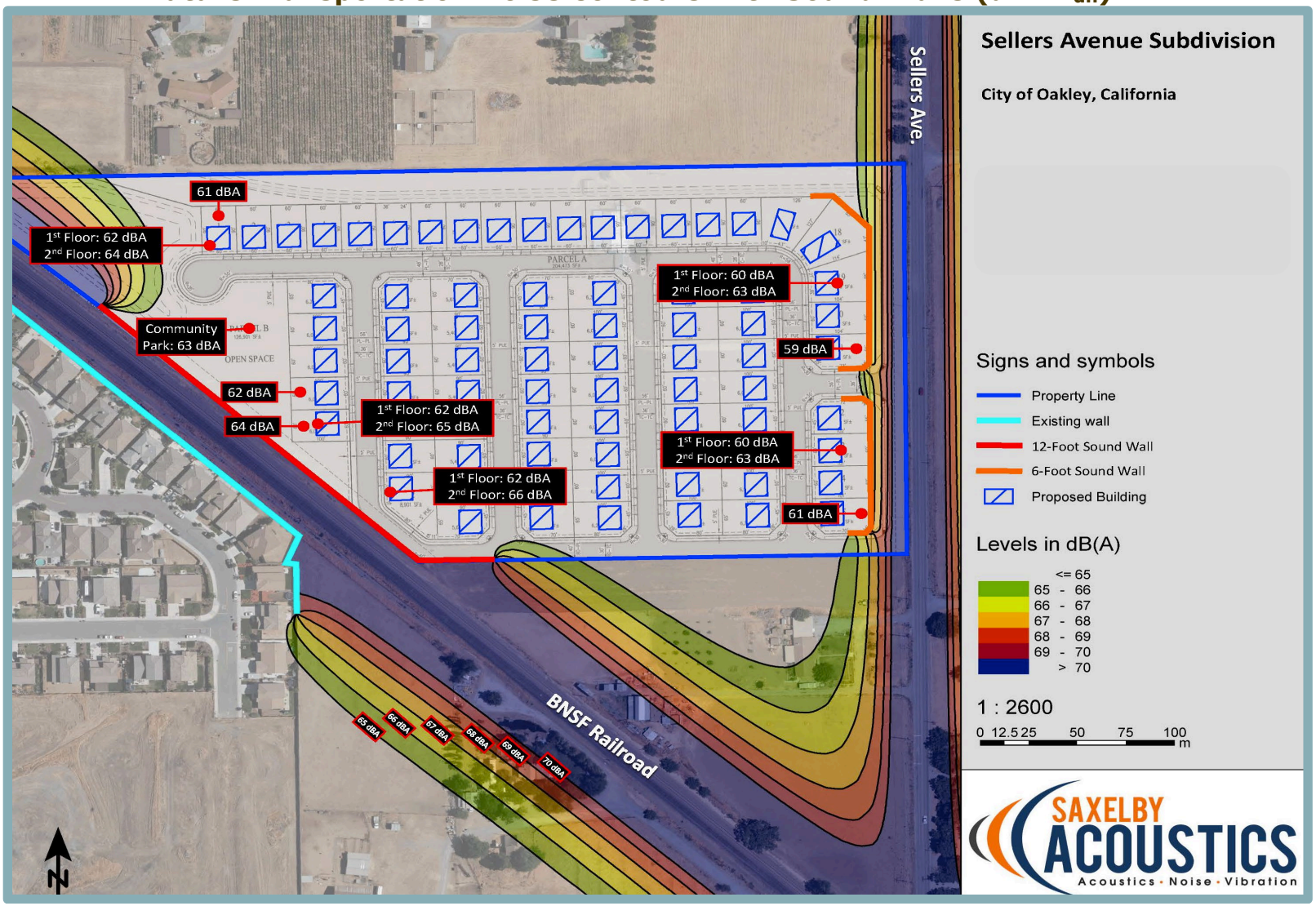


**Figure 10**
**Future Transportation Noise Contours with Sound Walls (dBA $L_{dn}$)**



Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

*XIII-1.* *Prior to approval of grading permits, the following criteria shall be established and noted on graded plans, subject to review and approval by the City of Oakley Planning Division:*

- *Construction activities shall be limited to between the daytime hours of 7:30 AM to 7:00 PM Monday through Friday, and 9:00 AM to 7:00 PM on Saturdays, Sundays, and holidays.*
- *Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.*
- *When not in use, motorized construction equipment shall not be left idling for more than five minutes.*
- *Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or sufficiently shielded to reduce noise-related impacts.*

b. Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 9, which was developed by the California Department of Transportation (Caltrans), shows the vibration levels that would normally be required to result in damage to structures. As shown in the table, the threshold for architectural damage to structures is 0.20 in/sec PPV and continuous vibrations of 0.10 in/sec PPV, or greater, would likely cause annoyance to sensitive receptors.

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and paving occur. Table 10 shows the typical vibration levels produced by construction equipment at various distances. The most substantial source of groundborne vibrations associated with project construction would be the use of vibratory compactors. Use of vibratory compactors/rollers could be required during construction of the proposed project.

**Table 9**
**Effects of Vibration on People and Buildings**

| PPV | | Human Reaction | Effect on Buildings |
|---|---|---|---|
| mm/sec | in/sec | | |
| 0.15 to 0.30 | 0.006 to 0.019 | Threshold of perception; possibility of intrusion | Vibrations unlikely to cause damage of any type |
| 2.0 | 0.08 | Vibrations readily perceptible | Recommended upper level of the vibration to which ruins and ancient monuments should be subjected |
| 2.5 | 0.10 | Level at which continuous vibrations begin to annoy people | Virtually no risk of "architectural" damage to normal buildings |
| 5.0 | 0.20 | Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations) | Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage |
| 10 to 15 | 0.4 to 0.6 | Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges | Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage |

***Source: Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.***

**Table 10**
**Vibration Levels for Various Construction Equipment**

| Type of Equipment | PPV at 25 feet (in/sec) | PPV at 50 feet (in/sec) |
|---|---|---|
| Large Bulldozer | 0.089 | 0.031 |
| Loaded Trucks | 0.076 | 0.027 |
| Small Bulldozer | 0.003 | 0.001 |
| Auger/drill Rigs | 0.089 | 0.031 |
| Jackhammer | 0.035 | 0.012 |
| Vibratory Hammer | 0.070 | 0.025 |
| Vibratory Compactor/roller | 0.210 (less than 0.20 at 26 feet) | 0.074 |

***Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.***

Based on Table 10, construction vibration levels anticipated for the project would be less than the 0.2 in/sec threshold at distances of 26 feet or more. Sensitive receptors that could be impacted by construction-related vibrations, including those affected by the off-site improvements, are located approximately 30 feet, or further, from where construction would occur. Therefore, the receptors would be subjected to vibration levels less than the 0.20 in/sec PPV threshold.

Furthermore, the proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration. Additionally, construction activities would be

temporary in nature and are anticipated to occur during normal daytime working hours, consistent with Section 4.2.208 of the City's Municipal Code.

Because construction activities are not anticipated to expose people to or generate excessive groundbourne vibrations or groundborne noise levels, a ***less-than-significant*** impact would occur.

c. The nearest airport to the site is Byron Airport, located approximately 10.35 miles southeast of the site. The site is not covered by an existing airport land use plan. Given that the project site is not located within two miles of a public or private airport, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with airports. Thus, ***no impact*** would occur.

| **XIV. POPULATION AND HOUSING.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)? | ☐ | ☐ | ✖ | ☐ |
| b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ✖ | ☐ |

## Discussion

a. The proposed project would include the development of 77 single-family residential units. Using the City of Oakley General Plan's average person per household value for single-family uses of 3.43, the proposed project would generate approximately 264 additional residents (77 x 3.43 = 264.11).[36] The 2020 U.S. Census estimated the population of Oakley to be approximately 43,357.[37] An increase in population of 264 residents would constitute an approximately 0.61 percent increase in the City's population, which is not considered substantial growth. Furthermore, as discussed in Section XIX, Utilities and Service Systems, of this IS/MND, adequate utility infrastructure would be available to support the proposed project. Finally, the population growth generated by the proposed project would not be unplanned because the proposed project is consistent with the General Plan land use designation for the site and, thus, has been planned for residential development by the City.

As part of the project, infrastructure would be extended into areas that do not currently have access to municipal water and sewer service, which could indirectly result in population growth in the area. However, the potential population growth would not be unplanned. For example, the proposed sewer line extension has been sized to accommodate flows from the proposed project and existing downstream development only, and would not allow for additional upstream development. Should future development be proposed upstream, such development would be required to upsize the sewer line and undergo project-specific CEQA evaluation. In addition, as demonstrated in Figure ES-1 of the DWD 2020 Facilities Plan, a 24-inch water pipeline has been planned along Sellers Avenue and connecting to the existing main in E. Cypress Road.[38] Thus, the proposed project would fulfill a planned infrastructure improvement for the project area.

The land east of the project site, across Sellers Avenue, is located within unincorporated Contra Costa County. Therefore, if future development is proposed and wishes to connect to the new water and sewer infrastructure in Sellers Avenue, the site would first require annexation into the City of Oakley. As part of the annexation process, CEQA review and any warranted infrastructure improvements and/or upsizing would be required.

Based on the above, the project would have a ***less-than-significant*** impact with respect to inducing substantial unplanned population growth in an area, either directly or indirectly.

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[36] City of Oakley. *City of Oakley General Plan* [pg. 2-7]. Adopted January 11, 2022.

[37] U.S. Census Bureau. *Quick Facts, City of Oakley, California.* Available at: https://www.census.gov/quickfacts/fact/table/oakleycitycalifornia/POP010220#POP010220. Accessed August 2022.

[38] Diablo Water District. *2020 Facilities Plan* [Figure ES-1]. June 2020.

b. The proposed project would require demolition of one existing farmhouse structure and two ancillary buildings. However, the structures are not inhabited, and the removal of such would not be considered to result in the displacement of existing people or housing. As such, the proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, and a ***less-than-significant*** impact would occur.

| **XV. PUBLIC SERVICES.** *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Fire protection? | ☐ | ☐ | ✖ | ☐ |
| b. Police protection? | ☐ | ☐ | ✖ | ☐ |
| c. Schools? | ☐ | ☐ | ✖ | ☐ |
| d. Parks? | ☐ | ☐ | ✖ | ☐ |
| e. Other Public Facilities? | ☐ | ☐ | ✖ | ☐ |

## Discussion

a. Fire protection services within the project area are provided by the Contra Costa County Fire Protection District (CCCFPD). The CCCFPD provides fire suppression and prevention, emergency medical, rescue, ambulance transport, and public education services to more than one million people across the 304-square-mile service area.[39] Services are provided from 25 fire stations, the closest to the project site located approximately 1.81 miles to the northwest. The proposed project would be subject to participation in a Community Facilities District (CFD) prepared and administered by CCCFPD. Participation in the CFD would mitigate any increased demands on fire services that may result from the proposed project, as well as ensure that the project conforms with the City of Oakley's General Plan Policy 4.4.2, which requires new developments to pay a fair share of costs for new fire protection facilities and services. Additionally, the proposed project would not include any alterations to the circulation system of the surrounding area which could conflict with the City of Oakley's General Plan Policy 4.4.4, or otherwise response times.

As the proposed project is consistent with the General Plan, the increased demand for fire services due to residential development was anticipated and included in the CCCFPD's planning efforts. In addition, the project would be required to pay development fees in accordance with the City of Oakley Municipal Code. As the proposed project is not expected to cause significant degradation to response times or service ratios for the CCCFPD, which would induce the need for physically altered or expanded governmental facilities for fire protection services, the project would result in a ***less-than-significant*** impact.

b. Police protection is provided to the City of Oakley by the Oakley Police Department. The Oakley Police Department currently employs 43 persons, including the Chief of Police, two Lieutenants, six Sergeants, four Detectives, 21 Police Officers, two part time Police Records Assistants, one Records Supervisor and three full time and two part time Police Services Assistants and one Property & Evidence Technician.[40] As previously discussed, the proposed project would result in the development of 77 single-family residences. As

[39] Contra Costa County Fire Protection District. *2018 Annual Report*. Available at: https://cccfpd.org/2018-annual-report/. Accessed September 2022.

[40] Kenneth W. Strelo, Planning Manager, City of Oakley. Personal communication [email] with Rod Stinson, Vice President, Raney Planning and Management. September 6, 2022.

new residences typically generate a demand for police services, an increase in demand for police services would likely occur with implementation of the project. Nevertheless, the increase in police service demand from development of the project site has been included in City of Oakley's demand predictions based on anticipated General Plan buildout. In addition, development fees would be applied to the proposed project, as well as a Police Services levy to mitigate the financial impact to the City's police services budget.

Based on the above, the proposed project would create a demand that was anticipated for the site and would not induce the need for physically altered or expanded governmental facilities for police protection services, the construction of which could cause significant environmental impacts. Therefore, the proposed project would result in a ***less-than-significant*** impact.

c. The Oakley Union Elementary School District and the Liberty Union High School District provide public educational services to the project site. Given that the proposed project would include development of the project site with 77 single-family residences, the proposed project could increase the demand for schools in the area. Using a standard student generation rate of 0.53 students per dwelling unit, the proposed project's addition of 77 single-family residences would result in approximately 41 new K-12 students.[41] The City of Oakley General Plan includes goals and policies set forth to ensure adequate primary and secondary schools are developed in response to population growth. The City expects the General Plan to assist in the goal of providing an efficient and complete educational system for the citizens of Oakley. For example, Policy 4.65, set forth in the General Plan, ensures that school facility impacts fees are collected and requires that the City shall work with developers and school districts to establish mitigation measures to ensure the availability of adequate school facilities.

The proposed project would be subject to payment of School Impact Mitigation Development Fees to fund local school services. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act…involving…the planning, use, or development of real property" (Government Code 65996[b]). Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer are deemed to be "full and complete mitigation." In other words, payment of applicable development fees would be sufficient in reducing the impacts associated with an increase in students from the project.

Therefore, the proposed project would result in a ***less-than-significant*** impact regarding an increase in demand for schools.

d,e. The City of Oakley Municipal Code Section 9.2.208 requires at least 7.02 acres of parkland per 1,000 residents. As noted previously, buildout of the proposed project would result in an increase of approximately 264 new residents to the City. As a result, approximately 1.85 acres of parkland would be required to achieve the desired parkland ratio (0.00702 acres of parkland per resident x 264 new residents = 1.85 acres of parkland). Oakley Resolution 19-03 requires subdividers of land within the City to dedicate land and/or pay fees in lieu of the dedication for the neighborhood and community parks and recreation programs which is discussed in further detail in Section XVI, Recreation, below.

[41] Antioch Unified School District. *Facilities Master Plan* [pg. 248]. July 2018.

The Oakley 2020 General Plan EIR also analyzed impacts of buildout of the General Plan on other public facilities, such as libraries. The Oakley Branch Library is located in Freedom High School at 1050 Neroly Road and is open Tuesday through Saturday. Other libraries in close proximity to the City of Oakley include the Antioch Library and the Brentwood Branch Library. Future residents of the proposed project would have access to the aforementioned facilities. The Oakley 2020 General Plan EIR concluded that with implementation of the necessary General Plan policies, impacts related to public services would be reduced to a less-than-significant level.

Given that the proposed project would be required to pay the applicable park in-lieu fee, and that development of the site was anticipated by the City and would be consistent with the General Plan, the project would result in a ***less-than-significant*** impact related to parks and other public facilities.

| **XVI. RECREATION.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ✖ | ☐ |
| b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | ☐ | ☐ | ✖ | ☐ |

## Discussion

a,b. As discussed in Section XIV, Population and Housing, of this IS/MND, the proposed project would involve the development of 77 single-family residences, which are anticipated to serve approximately 264 residents. Thus, an increase in demand on recreational facilities is anticipated. The City of Oakley Municipal Code Section 9.2.208 requires 7.02 acres of parkland per 1,000 residents. Thus, as noted previously, 1.85 acres of parkland would be required to accommodate the anticipated population increase associated with the proposed project.

Oakley Municipal Code Section 9.2.204 mandates developments that include subdivision of land to either dedicate parkland or pay fees in lieu of the dedication for the neighborhood and community parks and recreation programs. As previously noted, the project would include an approximately 126,901-sf (2.91-acre) open space and bioretention area, which would include a tot-lot. Given the small portion of land dedicated to the tot-lot, the proposed project would not meet the parkland requirements set forth in Municipal Code Section 9.2.208. Therefore, the project applicant would be subject to in-lieu fees require pursuant to the Municipal Code. The park impact fees imposed by the City are used to generate revenue to provide park and recreational services on a community-wide level and to the general project vicinity

Therefore, the proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of facilities would occur or be accelerated. Furthermore, the project would not require further construction or expansion which might have an adverse physical effect on the environment, and a ***less-than-significant*** impact related to recreation would occur.

| **XVII. TRANSPORTATION.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? | ☐ | ☐ | ✖ | ☐ |
| b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | ☐ | ☐ | ✖ | ☐ |
| c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ✖ | ☐ | ☐ |
| d. Result in inadequate emergency access? | ☐ | ✖ | ☐ | ☐ |

## Discussion

a. The law has changed with respect to how transportation-related impacts may be addressed under CEQA. Traditionally, lead agencies used level of service (LOS) to assess the significance of such impacts, with greater levels of congestion considered to be more significant than lesser levels. Mitigation measures typically took the form of capacity-increasing improvements, which often had their own environmental impacts (e.g., to biological resources). Depending on circumstances, and an agency's tolerance for congestion (e.g., as reflected in its general plan), LOS D, E, or F often represented significant environmental effects. In 2013, however, the State Legislature passed legislation with the intention of ultimately doing away with LOS in most instances as a basis for environmental analysis under CEQA. Enacted as part of SB 743 (2013), PRC Section 21099, subdivision (b)(1), directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption proposed CEQA Guidelines addressing "criteria for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. In developing the criteria, [OPR] shall recommend potential metrics to measure transportation impacts that may include, but are not limited to, vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. The office may also establish criteria for models used to analyze transportation impacts to ensure the models are accurate, reliable, and consistent with the intent of this section."

Subdivision (b)(2) of Section 21099 further provides that "[u]pon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion *shall not be considered a significant impact on the environment* pursuant to [CEQA], except in locations specifically identified in the guidelines, if any." (Italics added.)

Pursuant to SB 743, the Natural Resources Agency promulgated CEQA Guidelines Section 15064.3 in late 2018. It became effective in early 2019. Subdivision (a) of that section provides that "[g]enerally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel.

Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact."[42]

Please refer to question 'b' for a discussion of VMT.

## Project Trip Generation

The Traffic Impact Analysis was prepared by TJKM to identify the proposed project's potential trip generation and any transportation related impacts associated with such (see Appendix D).[43] Project vehicle trip generation rates were obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition). Based on the ITE rates, the proposed project is estimated to generate 802 daily vehicle trips, including 60 AM peak hour and 80 PM peak hour trips.[44]

## Consistency with the City of Oakley General Plan Policies – Pedestrian, Bicycle, and Transit Facilities

The proposed project's potential impacts related to pedestrian, bicycle, and transit facilities are discussed below.

### Pedestrian Facilities

Pedestrian facilities are comprised of crosswalks, sidewalks, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access destinations such as institutions, businesses, public transportation, and recreation facilities. Sidewalks do not currently exist along the project frontage. The closest sidewalk network is located on the north side of E. Cypress Road at the intersection of E. Cypress Road and Sellers Avenue; on both sides of Main Street, south of Laurel Road; and on the south side of Laurel Road, east and west of Main Street.

The proposed project would include construction of sidewalks along the project frontage on the west side of Sellers Road and both sides of the future Laurel Road, and within the project site. All new sidewalks would be required to comply with the Americans with Disabilities Act (ADA) and would connect to the existing pedestrian network in the project vicinity. The project would add new curb ramps at both driveways of the project site and at the southwest corner of the Sellers Road and future Laurel Road intersection. The proposed curb ramps would be required comply with City standards at all intersections and driveways.

Considering the above, the proposed construction of new sidewalks and curb ramps would enhance the existing pedestrian infrastructure and would be required to comply with applicable City and ADA standards. Therefore, the proposed project would not result in the creation of a conflict with any adopted programs, plans, ordinances, or policies addressing pedestrian facilities and a less-than-significant impact would occur related to pedestrian facilities.

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42 Subdivision (b)(2) of Section 15064.3 ("transportation projects") provides that "[t]ransportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

43 TJKM. *Sellers Avenue Residential Development Traffic Impact Analysis.* August 1, 2022.

44 The Traffic Impact Analysis evaluated the construction of 85 dwelling units, based on a previously iteration of the proposed site plan. The currently proposed project only includes 77 dwelling units. Therefore, the analysis within the Traffic Impact Analysis is an overestimate and would be considered conservative.

## Bicycle Facilities

Approximately 29 miles of bicycle facilities are installed throughout the City of Oakley, including 15 miles of Class II on-street bicycle lanes and 12.4 miles of Class I multi-use paths.[45] In addition, 23 miles of additional bicycle facilities are either planned or proposed, such as new Class II bicycle lanes on Main Street and Laurel Road in the vicinity of the project site.[46] In the vicinity of the project site, Class II bicycle facilities exist along E. Cypress Road on the north side between Knightsen Avenue and Main Street, and on the south side between Main Street and Frank Hengel Way; along Main Street between Cypress Road and Simoni Ranch Road on both sides; along Sellers Avenue, north of E. Cypress Road; and along Laurel Road between Harvest Drive and Main Street on both sides. In addition, a Class I bicycle facility exists at Marsh Creek Regional Trail along Marsh Creek, which can be accessed through Delta Road approximately 1.5 mile west of the project site.

Although the proposed project would not include any new bicycle facilities, bicycle access to the project site would be provided by nearby bicycle facilities along both sides of E. Cypress Road and both sides of Laurel Road, west of Main Street. The Contra Costa County Transportation Authority Countywide Bicycle and Pedestrian Plan identifies planned Class II bike lanes along Sellers Road, south of E. Cypress Road, which is along the project frontage. Implementation of the proposed project would not preclude the future development of the planned bike lane. As such, development of the project would not preclude construction of any planned bicycle trails, the proposed project would not result in the creation of a conflict with any adopted programs, plans, ordinances, or policies addressing bicycle facilities, and a less-than-significant impact would occur related to bicycle facilities.

## Transit Facilities

Tri-Delta Transit provides transit services in the City of Oakley, with three lines connecting Brentwood and the Pittsburg/Bay Point Bay Area Rapid Transit (BART) station. Due to COVID-19 conditions, some of the routes and schedules may not currently be in full operation. The following Tri-Delta Transit Routes currently operate in the project vicinity:

- *Route 300,* the Pittsburg BART/Brentwood Park & Ride route, is a weekday express route connecting Brentwood to the Pittsburg/Bay Point BART station via Oakley and Antioch. This bus travels along Main Street, operating from 4:15 AM to approximately 10:00 PM with 15 to 30-minute headways.
- *Route 383*, the Oakley/Antioch/Freedom High School route, connects Oakley to Antioch and Freedom High School in Oakley. This route, in both clockwise and counterclockwise directions, provides only weekday service. The counterclockwise route runs with approximate one-hour headways, and the clockwise route runs twice during the AM peak hour period only.
- *Route 391,* the BART/Pittsburg/Antioch/Oakley/Brentwood route, provides weekday service to most East County cities. Route 391 operates from 4:00 AM to 1:15 AM with 30 to 60-minute headways.
- *Route 393*, the BART/Pittsburg/Antioch/Oakley/Brentwood route, provides weekend service to Route 391. Route 393 operates from 5:20 AM to 2:00 AM with approximately 60-minute headways.

[45] City of Oakley. *Mobility White Paper, City of Oakley Focused General Plan Update.* December 2021.
[46] *Ibid.*

In the vicinity of the project site, the nearest existing transit facility is located at the intersection of Main Street and E. Cypress Road. Following the planned extension of Laurel Road, the nearest transit stop to the project site would be at Main Street and Laurel Road. The bus stops are not accessible by way of pedestrian and bicycle facilities; however, future planned facilities and the proposed extension of Laurel Road, would provide additional pedestrian and bicycle accessibility to and from the project site. Although the proposed project would add riders to the existing transit services, TJKM concluded that the increase in ridership could be accommodated by the existing transit capacity. Furthermore, the proposed project is consistent with the General Plan land use designation for the site; therefore, impacts related to transit were already anticipated and evaluated in the General Plan EIR and Update IS/ND. Thus, the proposed project would not conflict with a program, plan, ordinance, or policy addressing transit service and a less-than-significant impact would occur.

## Conclusion

Based on the above, a ***less-than-significant*** impact would occur related to conflicting with a program, plan, ordinance, or policy addressing the circulation system, including transit, bicycle, and pedestrian facilities.

b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Although the City of Oakley has not yet established any standards or thresholds regarding VMT, pursuant to Section 15064.3(b)(3), a lead agency may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc. While changes to driving conditions that increase intersection delay are an important consideration for traffic operations and management, the method of analysis does not fully describe environmental effects associated with fuel consumption, emissions, and public health. Section 15064.3(3) changes the focus of transportation impact analysis in CEQA from measuring impact to drivers to measuring the impact of driving.

The Contra Costa Transportation Authority (CCTA) considers residential projects to have a significant impact on VMT if the project generated home-based VMT per resident is higher than the following:

- 85 percent of the home-based VMT per resident in the municipality; or
- 85 percent of the existing County-wide average home-based VMT per resident.

TJKM performed a VMT analysis for the project using the CCTA Model. Two full model runs were performed in accordance with the CCTA VMT methodology. The first model run was for Baseline Conditions, which represent the Year 2020 traffic conditions for the City of Oakley, and the second model run was for Baseline Plus Project Conditions.

Under Baseline conditions, the home-based VMT per capita for the City of Oakley is 26.76. For the project to have a less-than-significant impact, the project must produce VMT within the 85 percent threshold, which equates to 22.75 (0.85 x 26.76) VMT per resident.

Under Baseline conditions, the home-based VMT per capita for the City of Oakley is 26.76. For the project to have a less-than-significant impact, the project must produce VMT within the 85 percent threshold, which equates to 22.75 (0.85 x 26.76) VMT per resident.

Under Baseline Plus Project Conditions, the VMT per capita for the project Travel Analysis Zone is 23.39, which exceeds the 22.75 threshold. However, according to the Traffic Impact Analysis, the incorporation of sidewalk improvements and on- and off-site pedestrian connections included as part of the project would reduce project VMT to 22.06, which is less than the applicable threshold.

Based on the above, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and a ***less-than-significant*** impact would occur.

c,d. Primary access to the project site is proposed by way of two roadways from Sellers Avenue. The proposed internal roadway network would be 48 to 56 feet wide. The roadway widths are expected to accommodate on-street parking as well as emergency vehicle access.

During project operations, the proposed project would not alter the existing transportation network nor increase hazards due to a geometrical design feature, and oncoming traffic travelling northbound and southbound on Sellers Road would have a clear line of sight to vehicles exiting the project site for at least 430 feet, north and south of both proposed project entrances. As part of the Traffic Impact Analysis, TJKM conducted a vehicle queuing and storage analysis for all exclusive left-turn or right-turn pockets at the intersections in the project vicinity. The 95$^{th}$ percentile (maximum) queues were analyzed using the HCM 6$^{th}$ Edition Queue methodology contained in Vistro Software. According to the analysis, queue lengths at the intersection of Main Street/Laurel Road would increase by a maximum of 20 feet, or less than one vehicle length. Queue lengths would increase by approximately one vehicle at the eastbound left-turn at the intersection of Main Street and Laurel Road, and by less than one vehicle at the westbound left-turn at the intersection of Sellers Road/E. Cypress Road. Thus, safety hazards would not occur. It is noted that the intersection of Main Street and Laurel Road is significantly overloaded by projected development in the City of Oakley, and alternate access to the south may be required. However, this southern access is planned for development in the General Plan, and implementation of the proposed project would not substantially worsen the unacceptable conditions. Furthermore, as noted in the Traffic Impact Analysis, the City's planned improvements are expected to alleviate such queuing issues.

Implementation of the proposed project would introduce additional vehicle traffic along E. Cypress Road and Sellers Avenue. However, the proposed project would be consistent with the General Plan land use designation for the site and, thus, impacts related to hazards and emergency access associated with the proposed project were already analyzed and anticipated in the General Plan EIR and Update IS/ND.

During project construction, public roads in the vicinity would remain open and available for use by emergency vehicles and other traffic. In addition, the new internal roadways would provide two points of access to the project site, which would be adequate for emergency vehicle access. All interior drive aisles and parking stalls would comply with City design standards, and, thus, on-site circulation would be expected to function acceptably for emergency response vehicles. As such, the proposed on-site vehicle circulation would allow for emergency vehicle access and would not impede current response times to the project site. Additionally, the planned future extension of Laurel Road may expedite response times. However, during construction of the off-site water and sewer line extensions, vehicle travel along Sellers Avenue may be affected by truck traffic

and/or road closures. As a result, during the construction period, the proposed project could increase hazards and result in inadequate emergency access.

Based on the above, operations of the proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses, or result in inadequate emergency access. However, during construction, a ***potentially significant*** impact could occur.

## Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

*XVII-1.* *Prior to issuance of demolition or grading permits, the project applicant shall prepare and submit a Traffic Control Plan to the City for review and approval. The Traffic Control Plan shall include, but not be limited to, the following items, to the satisfaction of the City Engineer.*

- *Truck drivers shall be notified of and required to use the most direct route between the site and SR 4, as determined by the City Engineering Department;*
- *All site ingress and egress shall occur only at the main driveways to the project site and construction activities may require installation of temporary (or ultimate) traffic signals as determined by the City Engineer;*
- *Specifically-designated travel routes for large vehicles shall be monitored and controlled by flaggers for large construction vehicle ingress and egress;*
- *Warning signs indicating frequent truck entry and exit shall be posted on Sellers Avenue;*
- *Any debris and mud on nearby streets caused by trucks shall be monitored daily and may require instituting a street cleaning program;*
- *Construction employee parking shall be provided on the project site to eliminate conflicts with nearby areas. Construction of the project shall be staggered so that employee parking demand is met primarily by using on-site parking; and*
- *If importation and exportation of material becomes a traffic nuisance, the City Engineer shall limit the hours the activities can take place.*

| **XVIII. TRIBAL CULTURAL RESOURCES.** *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k). | ☐ | ✖ | ☐ | ☐ |
| b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | ☐ | ✖ | ☐ | ☐ |

## Discussion

a,b. As discussed in Section V, Cultural Resources, of this IS/MND, a Cultural Resource Study was prepared for the proposed project by SAS.[47] The study indicated that Native American or historic-era cultural resources were not present in the project site. In addition, the Native American Heritage Commission (NAHC) conducted a records search of the Sacred Lands File (SLF) on December 16, 2021. According to the NAHC SLF, the search results were negative and, thus, the project site does not contain known tribal cultural resources.

In compliance with AB 52 (PRC Section 21080.3.1), a project notification letter was distributed to the chairpersons of the following tribes on June 21, 2022: Amah Mutsun Tribal Band of Mission San Juan Bautista, Chicken Ranch Rancheria of Me-Wuk Indians, Guidiville Indian Rancheria, Indian Canyon Mutsun Band of Costanoan, Muwekma Ohlone Indian Tribe of the SF Bay Area, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, North Valley Yokuts Tribe, Tule River Indian Tribe, The Ohlone Indian Tribe, Wilton Rancheria, and The Confederated Villages of Lisjan. The Confederated Villages of Lisjan responded with a request for additional information, and the Northern Valley Yokuts Tribe responded with a request to observe and participate in cultural resource studies. The Indian Canyon Mutsun Band of Costanoan Ohlone People responded with a request to consult on the project, and the City responded to coordinate a meeting time. The Indian Canyon Mutsun Band of Costanoan Ohlone People have not yet responded and, as a result, consultation is ongoing.

Based on the history of disturbance at the project site and former agricultural uses, as well as the lack of identified tribal cultural resources at the site, tribal cultural resources are not expected to occur within the site. Nevertheless, the possibility exists that development of the proposed project could result in a substantial adverse change in the significance of a

[47] Solano Archaeological Services, LLC. *Cultural Resources Study – Sellers Avenue Development Project, City of Oakley, Contra Costa County, California.* December 14, 2021.

tribal cultural resource if previously unknown tribal cultural resources are uncovered during grading or other ground-disturbing activities. Thus, a ***potentially significant*** impact related to tribal cultural resources could occur.

## Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

*XVIII-1. Implement Mitigation Measures V-2 and V-3.*

| **XIX. UTILITIES AND SERVICE SYSTEMS.** *Would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | ☐ | ☐ | ✖ | ☐ |
| b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? | ☐ | ☐ | ✖ | ☐ |
| c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ✖ | ☐ |
| d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | ☐ | ☐ | ✖ | ☐ |
| e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | ☐ | ☐ | ✖ | ☐ |

## Discussion

a-c. Water, sanitary sewer, stormwater drainage, electricity, and telecommunications services would be provided to the project site by way of new connections to existing infrastructure in the immediate project area. Brief discussions of each utility that would serve the proposed project are included below.

### Water

The proposed project would include the installation of eight-inch water lines throughout the proposed internal roadway, and 1,880 LF of a northerly 24-inch water line in Sellers Avenue. The water system would connect to the existing 24-inch water main in E. Cypress Road.

Water service for the proposed project would be provided by the DWD. Pursuant to the DWD's 2020 UWMP, DWD's primary water supply for the distribution system is treated surface water from the United States Bureau of Reclamation's Central Valley Project (CVP) purchased from the Contra Costa Water District (CCWD). CVP water is conveyed through the Contra Costa Canal and Los Vaqueros system and treated at the Randall-Bold Water Treatment Plant in Oakley, which is jointly owned by DWD and CCWD.[48] According to the DWD 2020 UWMP, the DWD has a baseline demand of 177 gallons per capita per day (GPCD).[49] Thus, the project is projected to increase water demand by 46,728 gallons per day (177 GPCD x 264 residents), or 52.34 acre-feet per year.

[48] Diablo Water District. *2020 Urban Water Management Plan.* May 2022.
[49] Diablo Water District. *2020 Urban Water Management Plan* [pg. 3-5]. May 2022.

According to the DWD 2020 UWMP, the DWD's projected water supply exceeds the water demand for normal, single-dry, and multiple-dry years until at least 2040.[50] For example, during the fifth year of drought in 2025, the anticipated supply exceeds the anticipated demand by 1,207 acre-feet per year. Therefore, the DWD would have sufficient water supply to accommodate the 52.34 acre-feet per year increase associated with the proposed project.

Furthermore, the project site has been anticipated for development by the City of Oakley's General Plan EIR and Update IS/ND. The DWD's demand estimates consider increases in demand due to buildout of the City's General Plan;[51] consequently, the DWD has anticipated some level of increased water demand due to development of the project site compared to existing conditions. Thus, given the DWD's anticipated water surplus even with consideration of building of the project, adequate long-term water supply exists to accommodate the proposed project.

## Wastewater

The proposed project would include construction of new eight-inch sanitary sewer lines throughout the project site and along Sellers Avenue, which would then direct wastewater to approximately 2,600 LF of eight-inch sanitary sewer lines northwards to the existing sanitary sewer main in E. Cypress Road.

Sanitary sewer services would be provided to the project site by ISD. The wastewater system is composed of collection, treatment, and effluent recycling facilities. ISD operates and maintains the sewer system, which collects wastewater flows from individual developments within the City and conveys them to ISD's Water Recycling Facility. Wastewater is ultimately treated and stored either at the facility in a large 76 million gallon holding pond, or the treated water is conveyed to an outfall pipe in the San Joaquin River. The Water Recycling Facility has an average daily flow of 2.3 million gallons per day (MGD). The facility has a treatment capacity of approximately 4.3 MGD.[52]

Using standard industry assumptions that (1) domestic water use represents 40 percent of consumption; and (2) wastewater generation represents 90 percent of domestic water use, the proposed project would generate approximately 16,822 gallons of wastewater per day (46,728 gallons x 0.4 x 0.9). The addition of wastewater from the proposed project would represent less than 0.4 percent of the Water Recycling Facility's total capacity. Therefore, future development of 77 residences would not require the construction of new or expansion of existing wastewater treatment facilities, as the Water Recycling Facility has adequate capacity to serve the proposed project.

Furthermore, given that the project is consistent with the site's current General Plan land use, the type and intensity of growth that would be induced by the proposed project has been considered in the General Plan and associated wastewater generation has been analyzed in the General Plan EIR and IS/ND. The General Plan EIR determined that impacts related to wastewater treatment capacity would be less than significant.

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50 Diablo Water District. *2020 Urban Water Management Plan* [pg. 5-5 to 5-6]. May 2022.
51 Diablo Water District. *2020 Urban Water Management Plan* [pg. 2-2]. May 2022.
52 Ironhouse Sanitary District. *Sewer System Management Plan* [pg. I-3]. April 2017.

Therefore, given the available capacity within the wastewater facility, the proposed project would not result in inadequate capacity to serve the project's projected demand in addition to the existing commitments.

### Stormwater

As discussed above in Section X, Hydrology and Water Quality, of this IS/MND, all stormwater runoff from impervious surfaces would be directed and treated at the retention basin within the project site. The proposed on-site drainage systems would be required to comply with the City's SWPPP and Erosion and Sediment Control Plan, as well as the County C.3 standards. Therefore, the proposed project would not affect stormwater flows into ISD's existing system.

### Electricity and Telecommunications

Electricity and telecommunications utilities would be provided by way of connections to existing infrastructure located within the immediate project vicinity. PG&E would provide electricity services to the project site, while AT&T would provide telecommunication services. The proposed project would not require major upgrades to, or extension of, existing infrastructure. Thus, impacts related to electricity, natural gas, and telecommunications infrastructure would be less than significant.

### Conclusion

Based on the above, the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater, electric power, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Sufficient water supplies would be available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Furthermore, adequate wastewater capacity would also be available to serve the project's projected demand in addition to ISD's existing commitments. Thus, a ***less-than-significant*** impact would occur.

d,e. Solid waste, recyclable materials, and compostable material from the City of Oakley is hauled to Potrero Hills Landfill, located in Solano County. The landfill has a maximum permitted throughput of 4,330 tons per day. According to the California Department of Resources Recycling and Recovery (CalRecycle), the Potrero Hills Landfill has a remaining capacity of 13,872,000 cubic yards out of a total permitted capacity of 83,100,000 cubic yards.[53] Due to the substantial amount of available capacity remaining at Potrero Hills Landfill, sufficient capacity would be available to accommodate the project's solid waste disposal needs. Additionally, because the site has been anticipated for development by the City General Plan, impacts related to solid waste resulting from development of the site have already been evaluated in the City's General Plan EIR and Update IS/ND.

Furthermore, as required by CALGreen Code Section 4.408, the proposed project would be required to submit a Waste Management Plan to the City detailing on-site sorting of construction debris. Implementation of the Waste Management Plan would ensure that the proposed project meets established diversion requirements for reused or recycled construction waste.

[53] California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary: Potrero Hill Landfill (48-AA-0075)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/3591. Accessed May 2022.

Based on the above, the proposed project would comply with applicable federal, State, and local statutes and regulations related to solid waste. Therefore, the proposed project would have a ***less-than-significant*** impact related to solid waste.

| **XX. WILDFIRE.** *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:* | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Substantially impair an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ✖ | ☐ |
| b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | ☐ | ☐ | ✖ | ☐ |
| c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | ☐ | ☐ | ✖ | ☐ |
| d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | ☐ | ☐ | ✖ | ☐ |

## Discussion

a-d. According to the CALFIRE Fire and Resource Assessment Program, the project site is not located within a Very High or High FHSZ.[54] In addition, the project site is located near existing development and roadways, as well as the BNSF railroad tracks, that may act as a fire break. The presence of urban development and paved areas would preclude the uncontrolled spread of wildlife. As such, the proposed project would not result in substantial risks or hazards related to wildfires, and a ***less-than-significant*** impact would occur.

[54] California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. January 7, 2009.

| XXI. MANDATORY FINDINGS OF SIGNIFICANCE. | Potentially Significant Impact | Less-Than-Significant with Mitigation Incorporated | Less-Than-Significant Impact | No Impact |
|---|---|---|---|---|
| a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | ☐ | ✖ | ☐ | ☐ |
| b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | ☐ | ✖ | ☐ | ☐ |
| c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ✖ | ☐ | ☐ |

## Discussion

a. As discussed in Section IV, Biological Resources, of this IS/MND, while a limited potential exists for western burrowing owl, Swainson's hawk, golden eagle, and other birds protected by the MBTA to occur on-site, the proposed project would comply with the ECCCHCP/NCCP requirements including avoidance and minimization measures. In addition, Mitigation Measures V-1, V-2, and V-3 would ensure that, in the event that the on-site structures are considered historic, or if previously unknown prehistoric resources are discovered within the project site, such resources would be protected in compliance with the requirements of CEQA and other State standards.

Considering the above, the proposed project would not degrade the quality of the environment, substantially reduce or impact the habitat of fish or wildlife species, cause fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, with implementation of the mitigation measures identified herein, a ***less-than-significant*** impact would occur.

b. The proposed project, in conjunction with other development within the City of Oakley, could incrementally contribute to cumulative impacts in the area. However, as demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level through compliance with the mitigation measures included in this IS/MND, as well as applicable General Plan policies, Municipal Code standards, and other applicable local and State regulations.

All cumulative impacts related to air quality, noise, and transportation are either less than significant or less than significant after mitigation. Given the scope of the project, any incremental effects would not be considerable relative to the effects of all past, current, and probable future projects. In addition, buildout of the site was anticipated by the City for residential uses. As such, the proposed project is within the realm of what has been anticipated for the site and potential impacts resulting from development of the project have been analyzed in the General Plan EIR and Update IS/ND. Therefore, when viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, with the implementation of mitigation, development of the proposed project would not result in a cumulatively considerable contribution to cumulative impacts, and the project's incremental contribution to cumulative impacts would be ***less than significant***.

c. As described in this IS/MND, the proposed project would comply with all applicable General Plan policies, Municipal Code standards, other applicable local and State regulations, and mitigation measures included herein. In addition, as discussed in Section VII, Geology and Soils, Section IX, Hazards and Hazardous Materials, and Section XIII, Noise, of this IS/MND, the proposed project would not cause substantial effects to human beings, including effects related to exposure to hazardous materials and noise, after the implementation of the required mitigation measures. Therefore, with implementation of the required mitigation measures, the proposed project would result in a ***less-than-significant*** impact.

# Appendix A
# Air Quality and Greenhouse Gas Emissions – CalEEMod Results

# Sellers Avenue Detailed Report

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5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Sellers Avenue |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 3.60 |
| Precipitation (days) | 20.6 |
| Location | 37.98267204054916, -121.67973841346748 |
| County | Contra Costa |
| City | Oakley |
| Air District | Bay Area AQMD |
| Air Basin | San Francisco Bay Area |
| TAZ | 1362 |
| EDFZ | 1 |
| Electric Utility | Pacific Gas & Electric Company |
| Gas Utility | Pacific Gas & Electric |

## 1.2. Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|---|---|---|---|---|---|---|---|---|
| Single Family Housing | 77.0 | Dwelling Unit | 20.4 | 150,150 | 901,890 | — | 223 | — |
| User Defined Linear | 0.50 | Mile | 0.20 | 0.00 | — | — | — | — |

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

# 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 5.42 | 5.07 | 44.5 | 42.0 | 0.07 | 1.96 | 9.47 | 11.4 | 1.80 | 3.72 | 5.52 | — | 8,266 | 8,266 | 0.34 | 0.08 | 1.97 | 8,299 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 5.10 | 5.06 | 41.7 | 38.5 | 0.07 | 1.81 | 19.8 | 21.6 | 1.66 | 10.1 | 11.8 | — | 7,714 | 7,714 | 0.31 | 0.07 | 0.05 | 7,743 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.93 | 3.57 | 15.0 | 15.3 | 0.02 | 0.67 | 2.59 | 3.25 | 0.61 | 1.18 | 1.79 | — | 2,759 | 2,759 | 0.11 | 0.05 | 0.57 | 2,775 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.35 | 0.65 | 2.73 | 2.79 | < 0.005 | 0.12 | 0.47 | 0.59 | 0.11 | 0.22 | 0.33 | — | 457 | 457 | 0.02 | 0.01 | 0.10 | 460 |

### 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2023 | 5.42 | 5.07 | 44.5 | 42.0 | 0.07 | 1.96 | 9.47 | 11.4 | 1.80 | 3.72 | 5.52 | — | 8,266 | 8,266 | 0.34 | 0.08 | 1.97 | 8,299 |
| 2024 | 1.76 | 5.00 | 12.5 | 15.9 | 0.03 | 0.53 | 0.33 | 0.87 | 0.49 | 0.08 | 0.57 | — | 3,056 | 3,056 | 0.12 | 0.06 | 1.86 | 3,080 |
| 2025 | 1.65 | 4.91 | 11.7 | 15.7 | 0.03 | 0.46 | 0.33 | 0.80 | 0.43 | 0.08 | 0.51 | — | 3,046 | 3,046 | 0.12 | 0.06 | 1.75 | 3,070 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2023 | 5.10 | 5.06 | 41.7 | 38.5 | 0.07 | 1.81 | 19.8 | 21.6 | 1.66 | 10.1 | 11.8 | — | 7,714 | 7,714 | 0.31 | 0.07 | 0.05 | 7,743 |
| 2024 | 1.75 | 4.99 | 12.6 | 15.7 | 0.03 | 0.53 | 0.33 | 0.87 | 0.49 | 0.08 | 0.57 | — | 3,030 | 3,030 | 0.12 | 0.07 | 0.05 | 3,053 |
| 2025 | 1.64 | 4.90 | 11.7 | 15.5 | 0.03 | 0.46 | 0.33 | 0.80 | 0.43 | 0.08 | 0.51 | — | 3,022 | 3,022 | 0.12 | 0.06 | 0.05 | 3,044 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2023 | 1.93 | 3.04 | 15.0 | 15.3 | 0.02 | 0.67 | 2.59 | 3.25 | 0.61 | 1.18 | 1.79 | — | 2,759 | 2,759 | 0.11 | 0.04 | 0.48 | 2,775 |
| 2024 | 1.26 | 3.57 | 8.99 | 11.2 | 0.02 | 0.38 | 0.24 | 0.62 | 0.35 | 0.06 | 0.41 | — | 2,173 | 2,173 | 0.09 | 0.05 | 0.57 | 2,189 |
| 2025 | 0.82 | 2.55 | 5.87 | 7.76 | 0.01 | 0.23 | 0.17 | 0.40 | 0.21 | 0.04 | 0.25 | — | 1,514 | 1,514 | 0.06 | 0.03 | 0.38 | 1,526 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2023 | 0.35 | 0.55 | 2.73 | 2.79 | < 0.005 | 0.12 | 0.47 | 0.59 | 0.11 | 0.22 | 0.33 | — | 457 | 457 | 0.02 | 0.01 | 0.08 | 460 |
| 2024 | 0.23 | 0.65 | 1.64 | 2.05 | < 0.005 | 0.07 | 0.04 | 0.11 | 0.06 | 0.01 | 0.07 | — | 360 | 360 | 0.01 | 0.01 | 0.10 | 362 |
| 2025 | 0.15 | 0.46 | 1.07 | 1.42 | < 0.005 | 0.04 | 0.03 | 0.07 | 0.04 | 0.01 | 0.05 | — | 251 | 251 | 0.01 | 0.01 | 0.06 | 253 |

## 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 3.81 | 7.26 | 3.72 | 32.0 | 0.07 | 0.14 | 2.19 | 2.33 | 0.14 | 0.39 | 0.52 | 15.3 | 8,248 | 8,263 | 1.95 | 0.27 | 26.2 | 8,418 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 3.24 | 6.69 | 4.13 | 25.2 | 0.07 | 0.14 | 2.19 | 2.33 | 0.13 | 0.39 | 0.52 | 15.3 | 7,792 | 7,807 | 1.99 | 0.29 | 1.73 | 7,9 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 3.37 | 6.84 | 3.71 | 26.4 | 0.07 | 0.12 | 2.19 | 2.31 | 0.12 | 0.39 | 0.50 | 15.3 | 7,531 | 7,547 | 1.96 | 0.28 | 11.9 | 7,691 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.62 | 1.25 | 0.68 | 4.82 | 0.01 | 0.02 | 0.40 | 0.42 | 0.02 | 0.07 | 0.09 | 2.53 | 1,247 | 1,249 | 0.33 | 0.05 | 1.98 | 1,273 |

## 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Sector | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 3.26 | 3.00 | 2.52 | 27.1 | 0.06 | 0.04 | 2.19 | 2.24 | 0.04 | 0.39 | 0.43 | — | 6,459 | 6,459 | 0.25 | 0.24 | 25.1 | 6,563 |
| Area | 0.44 | 4.20 | 0.30 | 4.47 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | 0.00 | 336 | 336 | 0.01 | < 0.005 | — | 336 |
| Energy | 0.11 | 0.05 | 0.90 | 0.38 | 0.01 | 0.07 | — | 0.07 | 0.07 | — | 0.07 | — | 1,407 | 1,407 | 0.14 | 0.01 | — | 1,413 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 5.37 | 46.4 | 51.8 | 0.56 | 0.01 | — | 69.9 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 9.94 | 0.00 | 9.94 | 0.99 | 0.00 | — | 34.8 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.08 | 1.08 |
| Total | 3.81 | 7.26 | 3.72 | 32.0 | 0.07 | 0.14 | 2.19 | 2.33 | 0.14 | 0.39 | 0.52 | 15.3 | 8,248 | 8,263 | 1.95 | 0.27 | 26.2 | 8,418 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 3.10 | 2.83 | 2.98 | 24.7 | 0.06 | 0.04 | 2.19 | 2.24 | 0.04 | 0.39 | 0.43 | — | 6,014 | 6,014 | 0.28 | 0.27 | 0.65 | 6,103 |
| Area | 0.03 | 3.81 | 0.26 | 0.11 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | 0.00 | 324 | 324 | 0.01 | < 0.005 | — | 325 |
| Energy | 0.11 | 0.05 | 0.90 | 0.38 | 0.01 | 0.07 | — | 0.07 | 0.07 | — | 0.07 | — | 1,407 | 1,407 | 0.14 | 0.01 | — | 1,413 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 5.37 | 46.4 | 51.8 | 0.56 | 0.01 | — | 69.9 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 9.94 | 0.00 | 9.94 | 0.99 | 0.00 | — | 34.8 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.08 | 1.0 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 3.24 | 6.69 | 4.13 | 25.2 | 0.07 | 0.14 | 2.19 | 2.33 | 0.13 | 0.39 | 0.52 | 15.3 | 7,792 | 7,807 | 1.99 | 0.29 | 1.73 | 7,946 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 3.06 | 2.80 | 2.79 | 23.9 | 0.06 | 0.04 | 2.19 | 2.24 | 0.04 | 0.39 | 0.43 | — | 6,064 | 6,064 | 0.27 | 0.26 | 10.9 | 6,159 |
| Area | 0.20 | 3.99 | 0.03 | 2.15 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 13.8 | 13.8 | < 0.005 | < 0.005 | — | 13.8 |
| Energy | 0.11 | 0.05 | 0.90 | 0.38 | 0.01 | 0.07 | — | 0.07 | 0.07 | — | 0.07 | — | 1,407 | 1,407 | 0.14 | 0.01 | — | 1,413 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 5.37 | 46.4 | 51.8 | 0.56 | 0.01 | — | 69.9 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 9.94 | 0.00 | 9.94 | 0.99 | 0.00 | — | 34.8 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.08 | 1.08 |
| Total | 3.37 | 6.84 | 3.71 | 26.4 | 0.07 | 0.12 | 2.19 | 2.31 | 0.12 | 0.39 | 0.50 | 15.3 | 7,531 | 7,547 | 1.96 | 0.28 | 11.9 | 7,691 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.56 | 0.51 | 0.51 | 4.36 | 0.01 | 0.01 | 0.40 | 0.41 | 0.01 | 0.07 | 0.08 | — | 1,004 | 1,004 | 0.04 | 0.04 | 1.80 | 1,020 |
| Area | 0.04 | 0.73 | < 0.005 | 0.39 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 2.28 | 2.28 | < 0.005 | < 0.005 | — | 2.28 |
| Energy | 0.02 | 0.01 | 0.16 | 0.07 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 233 | 233 | 0.02 | < 0.005 | — | 234 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 0.89 | 7.68 | 8.57 | 0.09 | < 0.005 | — | 11.6 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 1.65 | 0.00 | 1.65 | 0.16 | 0.00 | — | 5.76 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.18 | 0.18 |
| Total | 0.62 | 1.25 | 0.68 | 4.82 | 0.01 | 0.02 | 0.40 | 0.42 | 0.02 | 0.07 | 0.09 | 2.53 | 1,247 | 1,249 | 0.33 | 0.05 | 1.98 | 1,273 |

# 3. Construction Emissions Details

## 3.1. Linear, Grading & Excavation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.55 | 0.46 | 4.27 | 5.86 | 0.01 | 0.19 | — | 0.19 | 0.17 | — | 0.17 | — | 864 | 864 | 0.04 | 0.01 | — | 867 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00 | 0.00 | — | 0.00 | 0.00 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.55 | 0.46 | 4.27 | 5.86 | 0.01 | 0.19 | — | 0.19 | 0.17 | — | 0.17 | — | 864 | 864 | 0.04 | 0.01 | — | 867 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00 | 0.00 | — | 0.00 | 0.00 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.01 | 0.12 | 0.16 | < 0.005 | 0.01 | — | 0.01 | < 0.005 | — | < 0.005 | — | 23.7 | 23.7 | < 0.005 | < 0.005 | — | 23.8 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00 | 0.00 | — | 0.00 | 0.00 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.92 | 3.92 | < 0.005 | < 0.005 | — | 3.93 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00 | 0.00 | — | 0.00 | 0.00 | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.04 | 0.04 | 0.03 | 0.49 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 91.7 | 91.7 | < 0.005 | < 0.005 | 0.41 | 93.2 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.04 | 0.04 | 0.04 | 0.41 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 83.8 | 83.8 | < 0.005 | < 0.005 | 0.01 | 84.9 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 2.32 | 2.32 | < 0.005 | < 0.005 | < 0.005 | 2.36 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 0.38 | 0.38 | < 0.005 | < 0.005 | < 0.005 | 0.39 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.3. Linear, Drainage, Utilities, & Sub-Grade (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.54 | 0.45 | 2.79 | 3.03 | < 0.005 | 0.15 | — | 0.15 | 0.14 | — | 0.14 | — | 415 | 415 | 0.02 | < 0.005 | — | 416 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00 | 0.00 | — | 0.00 | 0.00 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.08 | 0.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 11.4 | 11.4 | < 0.005 | < 0.005 | — | 11.4 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00 | 0.00 | — | 0.00 | 0.00 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.88 | 1.88 | < 0.005 | < 0.005 | — | 1.89 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00 | 0.00 | — | 0.00 | 0.00 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.01 | 0.24 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 45.8 | 45.8 | < 0.005 | < 0.005 | 0.21 | 46.6 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 1.16 | 1.16 | < 0.005 | < 0.005 | < 0.005 | 1.18 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 0.19 | 0.19 | < 0.005 | < 0.005 | < 0.005 | 0.19 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.5. Linear, Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.85 | 0.72 | 7.12 | 9.00 | 0.01 | 0.36 | — | 0.36 | 0.33 | — | 0.33 | — | 1,370 | 1,370 | 0.06 | 0.01 | — | 1,375 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.19 | 0.25 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 37.5 | 37.5 | < 0.005 | < 0.005 | — | 37.7 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.04 | 0.04 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 6.21 | 6.21 | < 0.005 | < 0.005 | — | 6.24 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.05 | 0.03 | 0.61 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 115 | 115 | 0.01 | < 0.005 | 0.52 | 117 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 2.90 | 2.90 | < 0.005 | < 0.005 | 0.01 | 2.94 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 0.48 | 0.48 | < 0.005 | < 0.005 | < 0.005 | 0.49 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.7. Demolition (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.39 | 2.84 | 27.3 | 23.5 | 0.03 | 1.20 | — | 1.20 | 1.10 | — | 1.10 | — | 3,425 | 3,425 | 0.14 | 0.03 | — | 3,437 |
| Demolition | — | — | — | — | — | — | 0.27 | 0.27 | — | 0.04 | 0.04 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.28 | 0.23 | 2.25 | 1.93 | < 0.005 | 0.10 | — | 0.10 | 0.09 | — | 0.09 | — | 282 | 282 | 0.01 | < 0.005 | — | 282 |
| Demolition | — | — | — | — | — | — | 0.02 | 0.02 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.05 | 0.04 | 0.41 | 0.35 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 46.6 | 46.6 | < 0.005 | < 0.005 | — | 46.8 |
| Demolition | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.06 | 0.06 | 0.62 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 126 | 126 | < 0.005 | 0.01 | 0.02 | 127 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.02 | < 0.005 | 0.32 | 0.14 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 227 | 227 | 0.02 | 0.04 | 0.01 | 238 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | < 0.005 | < 0.005 | 0.05 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 10.4 | 10.4 | < 0.005 | < 0.005 | 0.02 | 10.6 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | < 0.005 | < 0.005 | 0.03 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 18.7 | 18.7 | < 0.005 | < 0.005 | 0.02 | 19.6 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 1.73 | 1.73 | < 0.005 | < 0.005 | < 0.005 | 1.75 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.09 | 3.09 | < 0.005 | < 0.005 | < 0.005 | 3.25 |

## 3.9. Site Preparation (2023) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 4.70 | 3.95 | 39.7 | 35.5 | 0.05 | 1.81 | — | 1.81 | 1.66 | — | 1.66 | — | 5,295 | 5,295 | 0.21 | 0.04 | — | 5,314 |
| Dust From Material Movement | — | — | — | — | — | — | 19.7 | 19.7 | — | 10.1 | 10.1 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.39 | 0.32 | 3.27 | 2.92 | < 0.005 | 0.15 | — | 0.15 | 0.14 | — | 0.14 | — | 435 | 435 | 0.02 | < 0.005 | — | 437 |
| Dust From Material Movement | — | — | — | — | — | — | 1.62 | 1.62 | — | 0.83 | 0.83 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.07 | 0.06 | 0.60 | 0.53 | < 0.005 | 0.03 | — | 0.03 | 0.02 | — | 0.02 | — | 72.1 | 72.1 | < 0.005 | < 0.005 | — | 72.3 |
| Dust From Material Movement | — | — | — | — | — | — | 0.29 | 0.29 | — | 0.15 | 0.15 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.07 | 0.06 | 0.07 | 0.72 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 147 | 147 | < 0.005 | 0.01 | 0.02 | 149 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.06 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 12.2 | 12.2 | < 0.005 | < 0.005 | 0.03 | 12.4 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 2.02 | 2.02 | < 0.005 | < 0.005 | < 0.005 | 2.05 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.11. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 4.43 | 3.72 | 37.3 | 31.4 | 0.06 | 1.59 | — | 1.59 | 1.47 | — | 1.47 | — | 6,598 | 6,598 | 0.27 | 0.05 | — | 6,621 |
| Dust From Material Movement | — | — | — | — | — | — | 9.20 | 9.20 | — | 3.65 | 3.65 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 4.43 | 3.72 | 37.3 | 31.4 | 0.06 | 1.59 | — | 1.59 | 1.47 | — | 1.47 | — | 6,598 | 6,598 | 0.27 | 0.05 | — | 6,621 |
| Dust From Material Movement | — | — | — | — | — | — | 9.20 | 9.20 | — | 3.65 | 3.65 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.36 | 0.31 | 3.07 | 2.58 | 0.01 | 0.13 | — | 0.13 | 0.12 | — | 0.12 | — | 542 | 542 | 0.02 | < 0.005 | — | 544 |
| Dust From Material Movement | — | — | — | — | — | — | 0.76 | 0.76 | — | 0.30 | 0.30 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.07 | 0.06 | 0.56 | 0.47 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 89.8 | 89.8 | < 0.005 | < 0.005 | — | 90.1 |
| Dust From Material Movement | — | — | — | — | — | — | 0.14 | 0.14 | — | 0.05 | 0.05 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.08 | 0.06 | 0.97 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 183 | 183 | 0.01 | 0.01 | 0.83 | 186 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.07 | 0.82 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 168 | 168 | < 0.005 | 0.01 | 0.02 | 170 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.07 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 13.9 | 13.9 | < 0.005 | < 0.005 | 0.03 | 14.1 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 2.31 | 2.31 | < 0.005 | < 0.005 | < 0.005 | 2.34 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.13. Building Construction (2023) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.50 | 1.26 | 11.8 | 13.2 | 0.02 | 0.55 | — | 0.55 | 0.51 | — | 0.51 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.50 | 1.26 | 11.8 | 13.2 | 0.02 | 0.55 | — | 0.55 | 0.51 | — | 0.51 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.64 | 0.54 | 5.06 | 5.64 | 0.01 | 0.24 | — | 0.24 | 0.22 | — | 0.22 | — | 1,027 | 1,027 | 0.04 | 0.01 | — | 1,031 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.12 | 0.10 | 0.92 | 1.03 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 170 | 170 | 0.01 | < 0.005 | — | 171 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.12 | 0.11 | 0.08 | 1.35 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 254 | 254 | 0.01 | 0.01 | 1.15 | 258 |
| Vendor | 0.02 | 0.01 | 0.33 | 0.16 | < 0.005 | < 0.005 | 0.01 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 228 | 228 | 0.01 | 0.03 | 0.59 | 239 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.11 | 0.10 | 0.10 | 1.14 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 232 | 232 | 0.01 | 0.01 | 0.03 | 235 |
| Vendor | 0.02 | 0.01 | 0.34 | 0.16 | < 0.005 | < 0.005 | 0.01 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 229 | 229 | 0.01 | 0.03 | 0.02 | 239 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | 0.05 | 0.04 | 0.04 | 0.48 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 101 | 101 | < 0.005 | < 0.005 | 0.21 | 102 |
| Vendor | 0.01 | < 0.005 | 0.14 | 0.07 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 97.9 | 97.9 | 0.01 | 0.01 | 0.11 | 102 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.09 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 16.7 | 16.7 | < 0.005 | < 0.005 | 0.04 | 16.9 |
| Vendor | < 0.005 | < 0.005 | 0.03 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 16.2 | 16.2 | < 0.005 | < 0.005 | 0.02 | 17.0 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.15. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.44 | 1.20 | 11.2 | 13.1 | 0.02 | 0.50 | — | 0.50 | 0.46 | — | 0.46 | — | 2,398 | 2,398 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.44 | 1.20 | 11.2 | 13.1 | 0.02 | 0.50 | — | 0.50 | 0.46 | — | 0.46 | — | 2,398 | 2,398 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.03 | 0.86 | 8.04 | 9.39 | 0.02 | 0.36 | — | 0.36 | 0.33 | — | 0.33 | — | 1,717 | 1,717 | 0.07 | 0.01 | — | 1,723 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.19 | 0.16 | 1.47 | 1.71 | < 0.005 | 0.07 | — | 0.07 | 0.06 | — | 0.06 | — | 284 | 284 | 0.01 | < 0.005 | — | 285 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.11 | 0.10 | 0.08 | 1.25 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 249 | 249 | < 0.005 | 0.01 | 1.05 | 253 |
| Vendor | 0.02 | 0.01 | 0.31 | 0.15 | < 0.005 | < 0.005 | 0.01 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 226 | 226 | 0.01 | 0.03 | 0.59 | 237 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.11 | 0.10 | 0.10 | 1.06 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 228 | 228 | 0.01 | 0.01 | 0.03 | 231 |
| Vendor | 0.02 | 0.01 | 0.33 | 0.15 | < 0.005 | < 0.005 | 0.01 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 226 | 226 | 0.01 | 0.03 | 0.02 | 236 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.06 | 0.74 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 165 | 165 | < 0.005 | 0.01 | 0.33 | 168 |
| Vendor | 0.02 | 0.01 | 0.23 | 0.11 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | 0.01 | — | 162 | 162 | 0.01 | 0.02 | 0.18 | 169 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.13 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 27.3 | 27.3 | < 0.005 | < 0.005 | 0.05 | 27.7 |
| Vendor | < 0.005 | < 0.005 | 0.04 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 26.8 | 26.8 | < 0.005 | < 0.005 | 0.03 | 28.0 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.17. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.67 | 0.56 | 5.21 | 6.51 | 0.01 | 0.22 | — | 0.22 | 0.20 | — | 0.20 | — | 1,196 | 1,196 | 0.05 | 0.01 | — | 1,201 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.12 | 0.10 | 0.95 | 1.19 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 198 | 198 | 0.01 | < 0.005 | — | 199 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.10 | 0.10 | 0.07 | 1.16 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 244 | 244 | < 0.005 | 0.01 | 0.97 | 248 |
| Vendor | 0.02 | 0.01 | 0.29 | 0.14 | < 0.005 | < 0.005 | 0.01 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 222 | 222 | 0.01 | 0.03 | 0.59 | 232 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.10 | 0.09 | 0.09 | 0.99 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 224 | 224 | 0.01 | 0.01 | 0.03 | 227 |
| Vendor | 0.02 | 0.01 | 0.31 | 0.15 | < 0.005 | < 0.005 | 0.01 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 222 | 222 | 0.01 | 0.03 | 0.02 | 232 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.05 | 0.04 | 0.48 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 113 | 113 | < 0.005 | < 0.005 | 0.21 | 114 |
| Vendor | 0.01 | < 0.005 | 0.15 | 0.07 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 111 | 111 | 0.01 | 0.02 | 0.13 | 116 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.09 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 18.7 | 18.7 | < 0.005 | < 0.005 | 0.03 | 18.9 |
| Vendor | < 0.005 | < 0.005 | 0.03 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 18.3 | 18.3 | < 0.005 | < 0.005 | 0.02 | 19.2 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.19. Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 1.04 | 0.88 | 8.06 | 10.0 | 0.01 | 0.41 | — | 0.41 | 0.38 | — | 0.38 | — | 1,512 | 1,512 | 0.06 | 0.01 | — | 1,517 |
| Paving | — | 0.03 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.04 | 0.04 | 0.33 | 0.41 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 62.1 | 62.1 | < 0.005 | < 0.005 | — | 62.3 |
| Paving | — | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.06 | 0.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.3 | 10.3 | < 0.005 | < 0.005 | — | 10.3 |
| Paving | — | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.07 | 0.06 | 0.04 | 0.73 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | — | 137 | 137 | 0.01 | 0.01 | 0.62 | 140 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 5.22 | 5.22 | < 0.005 | < 0.005 | 0.01 | 5.30 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 0.86 | 0.86 | < 0.005 | < 0.005 | < 0.005 | 0.88 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.21. Architectural Coating (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.18 | 0.15 | 0.93 | 1.15 | < 0.005 | 0.04 | — | 0.04 | 0.03 | — | 0.03 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 3.52 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.18 | 0.15 | 0.93 | 1.15 | < 0.005 | 0.04 | — | 0.04 | 0.03 | — | 0.03 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 3.52 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.07 | 0.06 | 0.37 | 0.46 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 53.6 | 53.6 | < 0.005 | < 0.005 | — | 53.7 |
| Architectural Coatings | — | 1.41 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.07 | 0.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 8.87 | 8.87 | < 0.005 | < 0.005 | — | 8.90 |
| Architectural Coatings | — | 0.26 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.02 | 0.27 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 50.8 | 50.8 | < 0.005 | < 0.005 | 0.23 | 51.7 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.02 | 0.23 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 46.5 | 46.5 | < 0.005 | < 0.005 | 0.01 | 47.1 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.09 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 18.8 | 18.8 | < 0.005 | < 0.005 | 0.04 | 19. |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 3.12 | 3.12 | < 0.005 | < 0.005 | 0.01 | 3.17 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.23. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.17 | 0.14 | 0.91 | 1.15 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 3.52 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.17 | 0.14 | 0.91 | 1.15 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 3.52 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.12 | 0.10 | 0.65 | 0.82 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 95.6 | 95.6 | < 0.005 | < 0.005 | — | 96.0 |
| Architectural Coatings | — | 2.52 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.12 | 0.15 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 15.8 | 15.8 | < 0.005 | < 0.005 | — | 15.9 |
| Architectural Coatings | — | 0.46 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.02 | 0.25 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 49.9 | 49.9 | < 0.005 | < 0.005 | 0.21 | 50.6 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.02 | 0.21 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 45.6 | 45.6 | < 0.005 | < 0.005 | 0.01 | 46.2 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.01 | 0.01 | 0.15 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 33.0 | 33.0 | < 0.005 | < 0.005 | 0.07 | 33. |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.03 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 5.47 | 5.47 | < 0.005 | < 0.005 | 0.01 | 5.55 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.25. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.15 | 0.13 | 0.88 | 1.14 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 3.52 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.15 | 0.13 | 0.88 | 1.14 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 3.52 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.08 | 0.07 | 0.46 | 0.60 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 70.3 | 70.3 | < 0.005 | < 0.005 | — | 70.5 |
| Architectural Coatings | — | 1.86 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.08 | 0.11 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 11.6 | 11.6 | < 0.005 | < 0.005 | — | 11.7 |
| Architectural Coatings | — | 0.34 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.01 | 0.23 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 48.9 | 48.9 | < 0.005 | < 0.005 | 0.19 | 49.6 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.02 | 0.20 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 44.7 | 44.7 | < 0.005 | < 0.005 | 0.01 | 45.3 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.10 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 23.8 | 23.8 | < 0.005 | < 0.005 | 0.04 | 24. |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | 0.00 | 0.00 | — | 3.94 | 3.94 | < 0.005 | < 0.005 | 0.01 | 4.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

# 4. Operations Emissions Details

## 4.1. Mobile Emissions by Land Use

### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 3.26 | 3.00 | 2.52 | 27.1 | 0.06 | 0.04 | 0.35 | 0.39 | 0.04 | 0.11 | 0.15 | — | 6,459 | 6,459 | 0.25 | 0.24 | 25.1 | 6,563 |
| Total | 3.26 | 3.00 | 2.52 | 27.1 | 0.06 | 0.04 | 0.35 | 0.39 | 0.04 | 0.11 | 0.15 | — | 6,459 | 6,459 | 0.25 | 0.24 | 25.1 | 6,563 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 3.10 | 2.83 | 2.98 | 24.7 | 0.06 | 0.04 | 0.35 | 0.39 | 0.04 | 0.11 | 0.15 | — | 6,014 | 6,014 | 0.28 | 0.27 | 0.65 | 6,103 |
| Total | 3.10 | 2.83 | 2.98 | 24.7 | 0.06 | 0.04 | 0.35 | 0.39 | 0.04 | 0.11 | 0.15 | — | 6,014 | 6,014 | 0.28 | 0.27 | 0.65 | 6,103 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single Family Housing | 0.56 | 0.51 | 0.51 | 4.36 | 0.01 | 0.01 | 0.06 | 0.07 | 0.01 | 0.02 | 0.03 | — | 1,004 | 1,004 | 0.04 | 0.04 | 1.80 | 1,020 |
| Total | 0.56 | 0.51 | 0.51 | 4.36 | 0.01 | 0.01 | 0.06 | 0.07 | 0.01 | 0.02 | 0.03 | — | 1,004 | 1,004 | 0.04 | 0.04 | 1.80 | 1,020 |

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 266 | 266 | 0.04 | 0.01 | — | 269 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 266 | 266 | 0.04 | 0.01 | — | 269 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 266 | 266 | 0.04 | 0.01 | — | 269 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 266 | 266 | 0.04 | 0.01 | — | 269 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | 44.1 | 44.1 | 0.01 | < 0.005 | — | 44.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 44.1 | 44.1 | 0.01 | < 0.005 | — | 44.5 |

### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 0.11 | 0.05 | 0.90 | 0.38 | 0.01 | 0.07 | — | 0.07 | 0.07 | — | 0.07 | — | 1,141 | 1,141 | 0.10 | < 0.005 | — | 1,144 |
| Total | 0.11 | 0.05 | 0.90 | 0.38 | 0.01 | 0.07 | — | 0.07 | 0.07 | — | 0.07 | — | 1,141 | 1,141 | 0.10 | < 0.005 | — | 1,144 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 0.11 | 0.05 | 0.90 | 0.38 | 0.01 | 0.07 | — | 0.07 | 0.07 | — | 0.07 | — | 1,141 | 1,141 | 0.10 | < 0.005 | — | 1,144 |
| Total | 0.11 | 0.05 | 0.90 | 0.38 | 0.01 | 0.07 | — | 0.07 | 0.07 | — | 0.07 | — | 1,141 | 1,141 | 0.10 | < 0.005 | — | 1,144 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | 0.02 | 0.01 | 0.16 | 0.07 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 189 | 189 | 0.02 | < 0.005 | — | 189 |
| Total | 0.02 | 0.01 | 0.16 | 0.07 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 189 | 189 | 0.02 | < 0.005 | — | 189 |

## 4.3. Area Emissions by Source

### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Source | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectural Coatings | — | 11.2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.03 | 0.01 | 0.26 | 0.11 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | 0.00 | 324 | 324 | 0.01 | < 0.005 | — | 325 |
| Consumer Products | — | 3.21 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.41 | 0.39 | 0.04 | 4.36 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 11.7 | 11.7 | < 0.005 | < 0.005 | — | 11.7 |
| Total | 0.44 | 14.8 | 0.30 | 4.47 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | 0.00 | 336 | 336 | 0.01 | < 0.005 | — | 336 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 11.2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.03 | 0.01 | 0.26 | 0.11 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | 0.00 | 324 | 324 | 0.01 | < 0.005 | — | 325 |
| Consumer Products | — | 3.21 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 0.03 | 14.4 | 0.26 | 0.11 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | 0.00 | 324 | 324 | 0.01 | < 0.005 | — | 325 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 1.16 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 1.32 | 1.32 | < 0.005 | < 0.005 | — | 1.33 |
| Consumer Products | — | 0.59 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.04 | 0.04 | < 0.005 | 0.39 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.95 | 0.95 | < 0.005 | < 0.005 | — | 0.96 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 0.04 | 1.78 | < 0.005 | 0.39 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 2.28 | 2.28 | < 0.005 | < 0.005 | — | 2.28 |

## 4.4. Water Emissions by Land Use

### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 5.37 | 46.4 | 51.8 | 0.56 | 0.01 | — | 69.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 5.37 | 46.4 | 51.8 | 0.56 | 0.01 | — | 69.9 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 5.37 | 46.4 | 51.8 | 0.56 | 0.01 | — | 69.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 5.37 | 46.4 | 51.8 | 0.56 | 0.01 | — | 69.9 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 0.89 | 7.68 | 8.57 | 0.09 | < 0.005 | — | 11.6 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 0.89 | 7.68 | 8.57 | 0.09 | < 0.005 | — | 11.6 |

## 4.5. Waste Emissions by Land Use

### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 9.94 | 0.00 | 9.94 | 0.99 | 0.00 | — | 34.8 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 9.94 | 0.00 | 9.94 | 0.99 | 0.00 | — | 34.8 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 9.94 | 0.00 | 9.94 | 0.99 | 0.00 | — | 34.8 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 9.94 | 0.00 | 9.94 | 0.99 | 0.00 | — | 34.8 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 1.65 | 0.00 | 1.65 | 0.16 | 0.00 | — | 5.76 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 1.65 | 0.00 | 1.65 | 0.16 | 0.00 | — | 5.76 |

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.08 | 1.08 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.08 | 1.08 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.08 | 1.08 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.08 | 1.08 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.18 | 0.18 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.18 | 0.18 |

## 4.7. Offroad Emissions By Equipment Type

### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.8. Stationary Emissions By Equipment Type

### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.9. User Defined Emissions By Equipment Type

### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10. Soil Carbon Accumulation By Vegetation Type

### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetation | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### 4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Remove | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

# 5. Activity Data

## 5.1. Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|
| Linear, Grading & Excavation | Linear, Grading & Excavation | 3/25/2023 | 4/7/2023 | 5.00 | 10.0 | — |
| Linear, Drainage, Utilities, & Sub-Grade | Linear, Drainage, Utilities, & Sub-Grade | 4/8/2023 | 4/21/2023 | 5.00 | 10.0 | — |
| Linear, Paving | Linear, Paving | 4/22/2023 | 5/5/2023 | 5.00 | 10.0 | — |
| Demolition | Demolition | 1/1/2023 | 2/12/2023 | 5.00 | 30.0 | — |
| Site Preparation | Site Preparation | 2/13/2023 | 3/24/2023 | 5.00 | 30.0 | — |
| Grading | Grading | 3/25/2023 | 5/5/2023 | 5.00 | 30.0 | — |
| Building Construction | Building Construction | 5/27/2023 | 9/12/2025 | 5.00 | 600 | — |
| Paving | Paving | 5/6/2023 | 5/26/2023 | 5.00 | 15.0 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| Architectural Coating | Architectural Coating | 6/10/2023 | 9/26/2025 | 5.00 | 600 | — |

## 5.2. Off-Road Equipment

### 5.2.1. Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | Diesel | Average | 1.00 | 8.00 | 33.0 | 0.73 |
| Demolition | Excavators | Diesel | Average | 3.00 | 8.00 | 36.0 | 0.38 |
| Demolition | Rubber Tired Dozers | Diesel | Average | 2.00 | 8.00 | 367 | 0.40 |
| Site Preparation | Rubber Tired Dozers | Diesel | Average | 3.00 | 8.00 | 367 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | Diesel | Average | 4.00 | 8.00 | 84.0 | 0.37 |
| Grading | Excavators | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Scrapers | Diesel | Average | 2.00 | 8.00 | 423 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 8.00 | 84.0 | 0.37 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |
| Building Construction | Forklifts | Diesel | Average | 3.00 | 8.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |
| Paving | Pavers | Diesel | Average | 2.00 | 8.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Average | 2.00 | 8.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Architectural Coating | Air Compressors | Diesel | Average | 1.00 | 6.00 | 37.0 | 0.48 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Linear, Paving | Pavers | Diesel | Average | 2.00 | 8.00 | 81.0 | 0.42 |
| Linear, Paving | Paving Equipment | Diesel | Average | 2.00 | 8.00 | 89.0 | 0.36 |
| Linear, Paving | Rollers | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.38 |
| Linear, Grading & Excavation | Excavators | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Linear, Grading & Excavation | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 8.00 | 84.0 | 0.37 |
| Linear, Drainage, Utilities, & Sub-Grade | Trenchers | Diesel | Average | 2.00 | 8.00 | 40.0 | 0.50 |

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Demolition | — | — | — | — |
| Demolition | Worker | 15.0 | 11.7 | LDA,LDT1,LDT2 |
| Demolition | Vendor | — | 8.40 | HHDT,MHDT |
| Demolition | Hauling | 3.07 | 20.0 | HHDT |
| Demolition | Onsite truck | — | — | HHDT |
| Site Preparation | — | — | — | — |
| Site Preparation | Worker | 17.5 | 11.7 | LDA,LDT1,LDT2 |
| Site Preparation | Vendor | — | 8.40 | HHDT,MHDT |
| Site Preparation | Hauling | 0.00 | 20.0 | HHDT |
| Site Preparation | Onsite truck | — | — | HHDT |
| Grading | — | — | — | — |
| Grading | Worker | 20.0 | 11.7 | LDA,LDT1,LDT2 |
| Grading | Vendor | — | 8.40 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |

| | | | | |
|---|---|---|---|---|
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 27.7 | 11.7 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 8.23 | 8.40 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 15.0 | 11.7 | LDA,LDT1,LDT2 |
| Paving | Vendor | — | 8.40 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 5.54 | 11.7 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | — | 8.40 | HHDT,MHDT |
| Architectural Coating | Hauling | 0.00 | 20.0 | HHDT |
| Architectural Coating | Onsite truck | — | — | HHDT |
| Linear, Grading & Excavation | — | — | — | — |
| Linear, Grading & Excavation | Worker | 10.0 | 11.7 | LDA,LDT1,LDT2 |
| Linear, Grading & Excavation | Vendor | 0.00 | 8.40 | HHDT,MHDT |
| Linear, Grading & Excavation | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Grading & Excavation | Onsite truck | — | — | HHDT |
| Linear, Drainage, Utilities, & Sub-Grade | — | — | — | — |
| Linear, Drainage, Utilities, & Sub-Grade | Worker | 5.00 | 11.7 | LDA,LDT1,LDT2 |
| Linear, Drainage, Utilities, & Sub-Grade | Vendor | 0.00 | 8.40 | HHDT,MHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Onsite truck | — | — | HHDT |
| Linear, Paving | — | — | — | — |

| | | | | |
|---|---|---|---|---|
| Linear, Paving | Worker | 12.5 | 11.7 | LDA,LDT1,LDT2 |
| Linear, Paving | Vendor | 0.00 | 8.40 | HHDT,MHDT |
| Linear, Paving | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Paving | Onsite truck | — | — | HHDT |

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5. Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|---|
| Architectural Coating | 304,054 | 101,351 | 0.00 | 0.00 | — |

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

| Phase Name | Material Imported (cy) | Material Exported (cy) | Acres Graded (acres) | Material Demolished (Building Square Footage) | Acres Paved (acres) |
|---|---|---|---|---|---|
| Linear, Grading & Excavation | — | — | 0.20 | 0.00 | — |
| Linear, Drainage, Utilities, & Sub-Grade | — | — | 0.20 | 0.00 | — |
| Demolition | 0.00 | 0.00 | 0.00 | 8,000 | — |
| Site Preparation | — | — | 45.0 | 0.00 | — |
| Grading | — | — | 90.0 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 1.05 |

### 5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

## 5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|
| Single Family Housing | 0.85 | 0% |
| User Defined Linear | 0.20 | 100% |

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2023 | 0.00 | 204 | 0.03 | < 0.005 |
| 2024 | 0.00 | 204 | 0.03 | < 0.005 |
| 2025 | 0.00 | 204 | 0.03 | < 0.005 |

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---|---|---|---|---|---|---|---|---|
| Single Family Housing | 727 | 726 | 726 | 265,197 | 7,964 | 7,957 | 7,957 | 2,906,073 |

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

| Hearth Type | Unmitigated (number) |
|---|---|
| Single Family Housing | — |

| | |
|---|---|
| Wood Fireplaces | 0 |
| Gas Fireplaces | 15 |
| Propane Fireplaces | 0 |
| Electric Fireplaces | 0 |
| No Fireplaces | 62 |
| Conventional Wood Stoves | 0 |
| Catalytic Wood Stoves | 0 |
| Non-Catalytic Wood Stoves | 0 |
| Pellet Wood Stoves | 0 |

### 5.10.2. Architectural Coatings

| Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|
| 304053.75 | 101,351 | 0.00 | 0.00 | — |

### 5.10.3. Landscape Equipment

| Season | Unit | Value |
|---|---|---|
| Snow Days | day/yr | 0.00 |
| Summer Days | day/yr | 180 |

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

#### Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|---|---|---|---|---|---|
| Single Family Housing | 476,234 | 204 | 0.0330 | 0.0040 | 3,559,088 |

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---|---|---|
| Single Family Housing | 2,802,209 | 13,156,231 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Single Family Housing | 18.4 | 0.00 |

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---|---|---|---|---|---|---|---|
| Single Family Housing | Average room A/C & Other residential A/C and heat pumps | R-410A | 2,088 | < 0.005 | 2.50 | 2.50 | 10.0 |
| Single Family Housing | Household refrigerators and/or freezers | R-134a | 1,430 | 0.12 | 0.60 | 0.00 | 1.00 |

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

| Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|

## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

| Equipment Type | Fuel Type | Number per Day | Hours per Day | Hours per Year | Horsepower | Load Factor |
|---|---|---|---|---|---|---|

### 5.16.2. Process Boilers

| Equipment Type | Fuel Type | Number | Boiler Rating (MMBtu/hr) | Daily Heat Input (MMBtu/day) | Annual Heat Input (MMBtu/yr) |
|---|---|---|---|---|---|

## 5.17. User Defined

| Equipment Type | Fuel Type |
|---|---|
| — | — |

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|---|---|---|---|

# 6. Climate Risk Detailed Report

## 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 19.4 | annual days of extreme heat |
| Extreme Precipitation | 1.95 | annual days with precipitation above 20 mm |
| Sea Level Rise | 0.00 | meters of inundation depth |
| Wildfire | 0.00 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | 1 | 0 | 0 | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |

| | | | | |
|---|---|---|---|---|
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack | N/A | N/A | N/A | N/A |
| Air Quality | 0 | 0 | 0 | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | 1 | 1 | 1 | 2 |
| Sea Level Rise | 1 | 1 | 1 | 2 |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack | N/A | N/A | N/A | N/A |
| Air Quality | 1 | 1 | 1 | 2 |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Exposure Indicators | — |
| AQ-Ozone | 37.6 |
| AQ-PM | 24.9 |
| AQ-DPM | 42.8 |
| Drinking Water | 43.3 |
| Lead Risk Housing | 37.4 |
| Pesticides | 62.3 |
| Toxic Releases | 24.8 |
| Traffic | 9.01 |
| Effect Indicators | — |
| CleanUp Sites | 80.9 |
| Groundwater | 39.4 |
| Haz Waste Facilities/Generators | 0.00 |
| Impaired Water Bodies | 96.3 |
| Solid Waste | 22.1 |
| Sensitive Population | — |
| Asthma | 78.9 |
| Cardio-vascular | 79.5 |
| Low Birth Weights | 40.9 |
| Socioeconomic Factor Indicators | — |
| Education | 46.8 |
| Housing | 25.3 |
| Linguistic | 9.46 |
| Poverty | 44.2 |

| | |
|---|---|
| Unemployment | 26.9 |

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Economic | — |
| Above Poverty | 53.47106378 |
| Employed | 45.74618247 |
| Education | — |
| Bachelor's or higher | 38.0341332 |
| High school enrollment | 100 |
| Preschool enrollment | 78.60900808 |
| Transportation | — |
| Auto Access | 40.33106634 |
| Active commuting | 17.10509432 |
| Social | — |
| 2-parent households | 12.13909919 |
| Voting | 48.44090851 |
| Neighborhood | — |
| Alcohol availability | 80.59797254 |
| Park access | 50.03208007 |
| Retail density | 10.07314256 |
| Supermarket access | 2.399589375 |
| Tree canopy | 47.18336969 |
| Housing | — |
| Homeownership | 62.29949955 |
| Housing habitability | 86.79584242 |

| | |
|---|---|
| Low-inc homeowner severe housing cost burden | 48.45374054 |
| Low-inc renter severe housing cost burden | 95.30347748 |
| Uncrowded housing | 52.3675093 |
| Health Outcomes | — |
| Insured adults | 44.9121006 |
| Arthritis | 0.0 |
| Asthma ER Admissions | 12.2 |
| High Blood Pressure | 0.0 |
| Cancer (excluding skin) | 0.0 |
| Asthma | 0.0 |
| Coronary Heart Disease | 0.0 |
| Chronic Obstructive Pulmonary Disease | 0.0 |
| Diagnosed Diabetes | 0.0 |
| Life Expectancy at Birth | 20.9 |
| Cognitively Disabled | 46.5 |
| Physically  Disabled | 57.4 |
| Heart Attack ER Admissions | 10.4 |
| Mental Health Not Good | 0.0 |
| Chronic Kidney Disease | 0.0 |
| Obesity | 0.0 |
| Pedestrian Injuries | 19.6 |
| Physical Health Not Good | 0.0 |
| Stroke | 0.0 |
| Health Risk Behaviors | — |
| Binge Drinking | 0.0 |
| Current Smoker | 0.0 |
| No Leisure Time for Physical Activity | 0.0 |

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| | |
|---|---|
| Climate Change Exposures | — |
| Wildfire Risk | 0.0 |
| SLR Inundation Area | 0.0 |
| Children | 25.4 |
| Elderly | 75.4 |
| English Speaking | 70.3 |
| Foreign-born | 43.5 |
| Outdoor Workers | 12.9 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 74.3 |
| Traffic Density | 9.9 |
| Traffic Access | 56.2 |
| Other Indices | — |
| Hardship | 54.9 |
| Other Decision Support | — |
| 2016 Voting | 35.7 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 47.0 |
| Healthy Places Index Score for Project Location (b) | 55.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

## 7.4. Health & Equity Measures

No Health & Equity Measures selected.

## 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

# 8. User Changes to Default Data

| Screen | Justification |
|---|---|
| Land Use | Per CGS map, project site is composed of marine and continental sedimentary rock. |
| Construction: Construction Phases | Linear construction assumed to occur entirely during grading phase. |
| Construction: Off-Road Equipment | Construction equipment assumed to be generally consistent with the normal construction defaults. |
| Operations: Vehicle Data | Trip generation updated based on project-specific traffic report. |

# Appendix B
# Planning Survey Report

# Application Form and Planning Survey Report

## To Comply With and Receive Permit Coverage Under The East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan

Please complete this application to apply for take authorization under the state and federal East Contra Costa County HCP/NCCP incidental take permits. The East Contra Costa County Habitat Conservancy ("Conservancy") or local jurisdiction (City of Brentwood, City of Clayton, City of Oakley, City of Pittsburg, and Contra Costa County) may request more information in order to deem the application complete.

## I. PROJECT OVERVIEW

| PROJECT INFORMATION | |
|---|---|
| **PROJECT NAME:** DeJesus Property | |
| **PROJECT TYPE:** ☒ Residential ☐ Commercial ☐ Transportation ☐ Utility ☐ Other | |
| **PROJECT DESCRIPTION (BRIEF):** Construction of a 77-lot residential subdivision. A detailed project description is included in Attachment A. | |
| **PROJECT ADDRESS/LOCATION:** West side of Sellers Road in Oakley, Contra Costa County, California. | |
| **PARCEL/PROJECT SIZE (ACRES):** 20.75+/- acres (20.42+/- acre parcel + 0.33+/- acres off-site improvements to Sellers Avenue) | |
| **PROJECT APN(S):** 033-150-013 | |
| **APPLICATION SUBMITTAL DATE:** May 2022 | **FINAL PSR DATE:** (City/County/Conservancy use) |
| **LEAD PLANNER: Joshua McMurray** | |
| **JURISDICTION:** ☐ City of Brentwood ☐ City of Clayton ☒ City of Oakley ☐ City of Pittsburg ☐ Contra Costa County ☐ Participating Special Entity* *Participating Special Entities are organizations not subject to the authority of a local jurisdiction. Such organizations may include school districts, irrigation districts, transportation agencies, local park districts, geological hazard abatement districts, or other utilities or special districts that own land or provide public services. | |
| **DEVELOPMENT FEE ZONE:** ☒ Zone I ☐ Zone II ☐ Zone III ☐ Zone IV See figure 9-1 of the HCP/NCCP at www.cocohcp.org for a generalized development fee zone map. Detailed development fee zone maps by jurisdiction are available from the jurisdiction. | |

| PROJECT APPLICANT INFORMATION | |
|---|---|
| **APPLICANT'S NAME:** MLC Holdings, Inc. | |
| **AUTHORIZED AGENT'S NAME AND TITLE:** Paul Manyisha, Forward Planning Manager | |
| **PHONE NO.:** (925) 324-6178 | **APPLICANT'S E-MAIL:** paul.manyisha@mlcholdings.net |
| **MAILING ADDRESS:** 2603 Camino Ramon, Suite 140, San Ramon, CA 94583 | |

| BIOLOGIST INFORMATION[1] | |
|---|---|
| **BIOLOGICAL/ENVIRONMENTAL FIRM:** Moore Biological Consultants | |
| **CONTACT NAME AND TITLE:** Diane S. Moore, M.S. | |
| **PHONE NO.:** (209) 745-1159 | **CONTACT'S E-MAIL:** moorebio@softcom.net |
| **MAILING ADDRESS:** Moore Biological Consultants, 10330 Twin Cities Rd., Ste. 30, Galt, California 95632 | |

[1] A USFWS/CDFW-approved biologist (project-specific) is required to conduct the surveys. Please submit biologist(s) approval request to the Conservancy.

## II. PROJECT DETAILS

**Please complete and/or provide the following attachments:**

1) **Project Description**
Attach as **Attachment A: Project Description**. Provide a detailed written description that concisely and completely describes the project and location. Include the following information:
   - All activities proposed for the site or project, including roads utilized, construction staging areas, and the installation of underground facilities, to ensure the entire project is covered by the HCP/NCCP permit
   - Proposed construction dates, including details on construction phases, if applicable
   - Reference a City/County application number for the project, if applicable
   - General Best Management Practices, if applicable
   - If the project will have temporary impacts, please provide a restoration plan describing how the site will be restored to pre-project conditions, including revegetation seed mixes or plantings and timing

2) **Project Vicinity Map**
Provide a project vicinity map. Attach as **Figure 1** in **Attachment B: Figures**.

3) **Project Site Plans**
Provide any project site plans for the project. Attach as **Figure 2** in **Attachment B: Figures**.

4) **CEQA Document**
Indicate the status of CEQA documents prepared for the project. Provide additional comments below table if necessary.

| Type of Document | Status | Date Completed |
|---|---|---|
| ☒ Initial Study | underway | 2022 |
| ☐ Notice of Preparation | | |
| ☐ Draft EIR | | |
| ☐ Final EIR | | |
| ☐ Notice of Categorical Exemption | | |
| ☐ Notice of Statutory Exemption | | |
| ☐ Other (describe) | | |

## III. EXISTING CONDITIONS AND IMPACTS

**Please complete and/or provide the following attachments:**

1) **Field-Verified Land Cover Map**[2]
Attach a field-verified land cover map in **Attachment B: Figures** and label as **Figure 3**. The map should contain all land cover types present on-site overlaid on aerial/satellite imagery. Map colors for the land cover types should conform to the HCP/NCCP (see *Figure 3-3: Landcover in the Inventory Area* for land cover type legend).

2) **Photographs of the Project Site**
Attach representative photos of the project site in **Attachment B: Figures** and label as **Figure 4**. Please provide captions for each photo.

[2] For PSEs and city or county public works projects, please also identify permanent and temporary impact areas by overlaying crosshatching (permanent impacts) and hatching (temporary impacts) on the land cover map.

## 3) Land Cover Types and Impacts and Supplemental Tables

- For all terrestrial land cover types please provide calculations to the nearest **hundredth of an acre (0.01)**. For aquatic land cover types please provide calculations to the nearest **thousandth of an acre (0.001)**.
- **Permanent Impacts** are broadly defined in the ECCC HCP/NCCP to include all areas removed from an undeveloped or habitat-providing state and includes land in the same parcel or project that is not developed, graded, physically altered, or directly affected in any way but is isolated from natural areas by the covered activity. Unless such undeveloped land is dedicated to the Preserve System or is a deed-restricted creek setback, the development mitigation fee will apply (if proposed, would require Conservancy approval).
- **Temporary Impacts** are broadly defined in the ECCC HCP/NCCP as any impact on vegetation or habitat that does not result in permanent habitat removal (i.e. vegetation can eventually recover).
- If **wetland (riparian woodland/scrub, wetland, or aquatic)** land cover types are present on the parcel but will not be impacted please discuss in the following section 4) Jurisdictional Wetlands and Waters. Wetland impact fees will only be charged if wetland features are impacted. However, development fees will apply to the entire parcel.
- **Stream** land cover type is considered a linear feature where impacts are calculated based on length impacted. The acreage within a stream, below Top of Bank (TOB), must be assigned to the adjacent land cover type(s). Insert area of impact to stream below TOB in parentheses after the Land Cover acreage number (e.g., Riparian Woodland/Scrub: 10 (0.036) – where 10 is the total impacted acreage including 0.036 acre, which is the acreage within stream TOB). Complete following supplemental **Stream Feature Detail** table to provide information for linear feet.
- **Total Impacts** acreage should be the total parcel acreage (development project) or project footprint acreage (rural infrastructure or utility project).

**Table 1: Land Cover Types and Impacts**

| Land Cover Type | Permanent Impacts | Temporary Impacts | *Proposed for HCP/NCCP Dedication on the Parcel (Requires Conservancy Approval)* *Stream Setback* | *Preserve System Dedication* |
|---|---|---|---|---|
| *Grassland* | | | | |
| Annual Grassland | | | | |
| Alkali Grassland | | | | |
| Ruderal | 20.10 | | | |
| *Shrubland* | | | | |
| Chaparral and Scrub | | | | |
| *Woodland* | | | | |
| Oak Savannah | | | | |
| Oak Woodland | | | | |
| *Riparian* | | | | |
| Riparian Woodland/Scrub | | | | |
| *Wetland* | | | | |
| Permanent Wetland | | | | |
| Seasonal Wetland | | | | |
| Alkali Wetland | | | | |
| *Aquatic* | | | | |
| Aquatic (Reservoir/Open Water) | | | | |
| Slough/Channel | | | | |
| Pond | | | | |
| Stream (in linear feet) | - | - | - | - |
| *Irrigated Agriculture* | | | | |
| Pasture | | | | |
| Cropland | | | | |
| Orchard | | | | |
| Vineyard | | | | |
| *Other* | | | | |
| Nonnative woodland | | | | |
| Wind turbines | | | | |
| *Developed (not counted toward Fees)* | | | | |
| Urban | 0.65 | | | |
| Aqueduct | | | | |
| Turf | | | | |
| Landfill | | | | |
| **TOTAL IMPACTS** | 20.75 | | | |

**Identify any uncommon vegetation and uncommon landscape features[3]:**

**Supplemental to Table 1: Uncommon Vegetation and Landscape Features**

| | Permanent Impacts | Temporary Impacts |
|---|---|---|
| *Uncommon Grassland Alliances* | | |
| Purple Needlegrass Grassland | | |
| Blue Wildrye Grassland | | |
| Creeping Ryegrass Grassland | | |
| Wildflower Fields | | |
| Squirreltail Grassland | | |
| One-sided Bluegrass Grassland | | |
| Serpentine Bunchgrass Grassland | | |
| Saltgrass Grassland | | |
| Alkali Sacaton Bunchgrass Grassland | | |
| ☐ Other | | |
| *Uncommon Landscape Features* | | |
| Rock Outcrops | | |
| Caves | | |
| Springs and seeps | | |
| Scalds | | |
| Sand Deposits | | |
| ☐ Mines[4] | | |
| ☐ Buildings (bat roosts)[3] | | |
| ☒ Potential nest sites (trees or cliffs)[3] | 7 trees | |

**Please provide details of impacts to stream features:**

**Stream Name:** None

**Watershed:**

**Supplemental to Table 1: Stream Feature Detail[5]**

| Stream Width | Stream Type[6] | Permanent Impacts (linear feet)[7] | Temporary Impacts (linear feet)[7] |
|---|---|---|---|
| ☐ ≤ 25 feet wide<br>☐ > 25 feet wide | ☐ Perennial<br>☐ Intermittent<br>☐ Ephemeral, 3rd or higher order<br>☐ Ephemeral, 1st or 2nd order | | |
| ☐ ≤ 25 feet wide<br>☐ > 25 feet wide | ☐ Perennial<br>☐ Intermittent<br>☐ Ephemeral, 3rd or higher order<br>☐ Ephemeral, 1st or 2nd order | | |
| ☐ ≤ 25 feet wide<br>☐ > 25 feet wide | ☐ Perennial<br>☐ Intermittent<br>☐ Ephemeral, 3rd or higher order<br>☐ Ephemeral, 1st or 2nd order | | |

[3] These acreages are for Conservancy tracking purposes. Impacts to these uncommon vegetation and landscape features should be accounted for within the land cover types in Table 1 (e.g., x acres of purple needlegrass in this supplemental table should be accounted for within annual grassland in Table 1).

[4] Insert amount/number, not acreage. Provide additional information on these features in Attachment A: Project Description.

[5] Use more than 1 row as necessary to describe impacts to streams on site.

[6] See glossary (Appendix A) for definition of stream type and order.

[7] Stream length is measured along stream centerline, based on length of impact to any part of the stream channel, TOB to TOB.

**4) Summary of Land Cover Types**

Please provide a written summary of descriptions for land cover types found on site including characteristic vegetation.

The first field survey conducted at the site was on October 21, 2020. This report reflects current site conditions based on the recent May 13th, 2022 field survey.

**Ruderal Grassland:** The project site is an open field that contained rows of recently cut grasses and weeds presumably being prepared for a hay harvest; there are weedier strips of grassland along the edges of the site (fence lines, road, and railroad tracks) and around the barn in the site (Figures 4a – 4d). Grasslands in the site have been highly disturbed by past agricultural use, grazing, development on the site and surrounding parcels, and other human activities (Figure 3). Dominant grassland species in the site include oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), prickly lettuce (*Lactuca serriola*), black mustard (*Brassica nigra*), telegraph weed (*Heterotheca grandiflora*), long-beaked stork's fill (*Erodium botrys*), and Russian thistle (*Salsola tragus*).

**Urban/Developed:** The developed areas in the site include an historical driveway from Sellers Avenue that leads to the barn in the north part of the site; this driveway is barely discernible in present day. The barn, graveled and landscaped areas surrounding the barn, and a small structure northwest of the barn are also considered urban (Figure 3 and 4d).

There are 7 trees in the project site. There are six ornamental trees associated with the large barn and an olive tree in the northeast corner of the site adjacent to Sellers Avenue.

**5) Jurisdictional Wetlands and Waters**

If wetlands and waters are present on the project site, project proponents must conduct a delineation of jurisdictional wetlands and waters. Jurisdictional wetlands and waters are defined on pages 1-18 and 1-19 of the ECCC HCP/NCCP as the following land cover types: permanent wetland, seasonal wetland, alkali wetland, aquatic, pond, slough/channel, and stream. It should be noted that these features differ for federal and state jurisdictions. If you have identified any of these land cover types in Table 1, complete the section below.

**a)** Attach the wetland delineation report as **Attachment E: Wetland Delineation.** If a wetland delineation has not been completed, please explain below in section 4c.

**b) Please check the following permits the project may require. Please submit copies of these permits to the Conservancy prior to the start of construction:**

☐ CWA Section 404 Permit[8] ☐ CWA Section 401 Water Quality Certification

☐ Waste Discharge Requirements ☐ Lake and Streambed Alteration Agreement

**c) Provide any additional information on impacts to jurisdictional wetland and waters below, including status of the permit(s):**

An assessment of potentially jurisdictional Waters of the U.S. or wetlands in the site was undertaken on May 13, 2022. There are no potentially jurisdictional Waters of the U.S. or wetlands of any type in the site. The site consists primarily of highly disturbed ruderal grassland, with soils that appear to be well draining.

[8] The USACE Sacramento District issued a Regional General Permit 1 (RGP) related to ECCC HCP/NCCP covered activities. The RGP is designed to streamline wetland permitting in the entire ECCC HCP/NCCP Plan Area by coordinating the avoidance, minimization, and mitigation measures in the Plan with the Corps' wetland permitting requirement. Applicants seeking authorization under this RGP shall notify the Corps in accordance with RGP general condition number 18 (Notification).

## 6) Species-Specific Planning Survey Requirements

Based on the land cover types found on-site and identified in Table 1, check the applicable boxes in Table 2a.

**Table 2a. Species –Specific Planning Survey Requirements**

| Land Cover Type in Project Area | Required Survey Species | Habitat Element in Project Area | Planning Survey Requirement[9] | Info in HCP |
|---|---|---|---|---|
| ☒ Grasslands, oak savannah, agriculture, or ruderal | ☐ San Joaquin kit fox | Assumed if within modeled range of species | If within modeled range of species, identify and map potential breeding or denning habitat within the project site and a 250-ft radius around the project footprint. | pp. 6-37 to 6-38 |
| | ☒ Western burrowing owl | Assumed | Identify and map potential breeding habitat within the project site and a 500-ft radius around the project footprint. Please note the HCP requires buffers for occupied burrows. Surveys may need to encompass an area larger than the project footprint. | pp. 6-39 to 6-41 |
| ☐ Aquatic (ponds, wetlands, streams, sloughs, channels, and marshes) | ☐ Giant garter snake | Aquatic habitat accessible from the San Joaquin River | Identify and map potential habitat. | pp. 6-43 to 6-45 |
| | ☐ California tiger salamander | Ponds and wetlands<br>Vernal pools<br>Reservoirs<br>Small lakes | Identify and map potential breeding habitat. Document habitat quality and features. Provide the Conservancy with photo-documentation and report. | pp. 6-45 |
| | ☐ California red-legged frog | Slow-moving streams, ponds and wetlands | Identify and map potential breeding habitat. Document habitat quality and features. Provide the Conservancy with photo-documentation and report. | p. 6-46 |
| | ☐ Covered shrimp | Seasonal wetlands<br>Vernal pools<br>Sandstone rock outcrops<br>Sandstone depressions | Identify and map potential habitat. Please note the HCP requires a 50 foot non-disturbance buffer from seasonal wetlands that may be occupied by covered shrimp. Surveys may need to encompass an area larger than the project footprint. | pp. 6-46 to 6-48 |
| ☒ Any | ☐ Townsend's big-eared bat | Rock formations with caves<br>Mines<br>Abandoned buildings outside urban area | Map and document potential breeding or roosting habitat. | pp. 6-36 to 6-37 |
| | ☒ Swainson's hawk | Potential nest sites within 1,000 feet of project | Inspect large trees for presence of nest sites. Document and map. | pp. 6-41 to 6-43 |
| | ☒ Golden Eagle | Potential nest sites with ½ mile of project | Inspect large trees for presence of nest sites. Document and map. | pp. 6-38 to 6-39 |
| Surveys for all covered species must be conducted by a qualified biologist (USFWS/CDFW project-specific approved). Please submit biologist approval request to the East Contra Costa County Habitat Conservancy.<br>Surveys for all covered species must be conducted according to the respective USFWS or CDFW survey protocols, as identified in Chapter 6.4.3 in the HCP/NCCP. | | | | |

## 7) Planning Survey Species Habitat Maps

Provide Planning Survey Species Habitat Maps as required in Table 2a, attach as **Figure 5** in **Attachment B: Figures**.

[9] The planning survey requirements in this table are not comprehensive. Please refer to Chapter 6.4.3 in the ECCC HCP/NCCP for more detail.

## 8) Results of Species Specific Surveys

Provide a written summary describing the results of the planning surveys. Please discuss the location, quantity, and quality of suitable habitat for specified covered wildlife species on the project site.

**General Setting:** The project site is in Oakley, in Contra Costa County, California (Figure 1). The site is within Section 31 in Township 2 North, Range 3 East of the USGS 7.5-minute Brentwood topographic quadrangle (Figure 1). The site is situated at an elevation of approximately 20 feet above mean sea level. Land uses in this portion of Oakley are primarily residential and agricultural. Sellers Avenue bounds the east edge of the site and railroad tracks bound the west edge of the site. There is a residential subdivision to the west of the railroad tracks. The south edge of the site is adjacent to a fallow field and the north edge of the site is adjacent to ranchette-style residential parcels.

**Western Burrowing Owl:** The project site contains ruderal grassland and is within the range of western burrowing owl (*Athene cunicularia*). California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB, 2022) does not contain any records of western burrowing owl within 500 feet of the site (Figure 5b) The nearest record of burrowing owl in the CNDDB (2022) search area is approximately 0.25 miles northwest of the site. The site was inspected for burrowing owls and ground squirrel burrows with evidence of burrowing owl occupancy (i.e., white wash, pellets, feathers). Comprehensive inspection of potential burrowing owl habitat was accomplished by walking meandering transects throughout the property. No western burrowing owls or burrows with evidence of burrowing owl occupancy were observed. Very few ground squirrel burrows were observed in the project site; the burrows were primarily located along the southern fence line and along the railroad tracks.

**Swainson's Hawk:** The site contains areas of ruderal grassland and is along the western edge of the range of Swainson's hawks (*Buteo swainsoni*). There are 7 trees in the site that are potentially suitable for nesting Swainson's hawks, as well as several potential nest trees near and visible from the site. Trees in the site and visible from the site were inspected for raptor stick nests. No raptor stick nests were observed in the on-site trees or in trees visible from the site. No Swainson's hawks were observed during the field survey, which was conducted just outside of the nesting season of this species. CDFW's CNDDB contains no occurrences of Swainson's hawk within 1,000 feet of the site and only 1 record within 0.5 mile of the site (Figure 5b).

**Golden Eagle:** The site contains ruderal grassland and is within the range of golden eagles (*Aquila chrysaetos*). CDFW's CNDDB contains no occurrences of golden eagle within 0.5 miles of the site or within the larger geographical area depicted in Figure 5b. There are 7 trees in the site that are potentially suitable for nesting golden eagles and only a few potential nest trees near and visible from the site. Trees on the site and visible from the site were inspected for raptor stick nests. No raptor stick nests were observed in the trees on site or any of the off-site trees visible from the site. No golden eagles were observed and this species nests more often on cliffs in remote natural areas than in trees near urban areas.

## 9) Covered and No-Take Plants

Please check the applicable boxes in Table 2b based on the land cover types found in the project area. If suitable land cover types are present on site, surveys must be conducted using approved CDFW/USFWS methods during the appropriate season for identification of covered and no-take species (see page 6-9 of the ECCC HCP/NCCP). Reference populations of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant species is visible and detectable at the time surveys are conducted. In order to complete all the necessary covered and no-take plant surveys, spring, summer, and fall surveys may be required.

## Table 2b. Covered and No-Take Plant Species

| Plant Species | Covered (C) or No-Take (N) | Associated Land Cover Type | Typical Habitat or Physical Conditions, if Known | Typical Blooming Period | Suitable Land Cover Type Present |
|---|---|---|---|---|---|
| Adobe navarretia (*Navarretia nigelliformis* ssp. *radians*) [a] | C | Annual Grassland | Generally found on clay barrens in Annual Grassland [b] | Apr–Jun | ☐ Yes ☒ No |
| Alkali milkvetch (*Astragalus tener* ssp. *tener*) | N | Alkali grassland<br>Alkali wetland<br>Annual grassland<br>Seasonal wetland | Generally found in vernally moist habitat in soils with a slight to strongly elevated pH | Mar–Jun | ☐ Yes ☒ No |
| Big tarplant (*Blepharizonia plumosa*) | C | Annual grassland | Elevation below 1500 feet [d] most often on Altamont Series or Complex soils | Jul–Oct | ☐ Yes ☒ No |
| Brewer's dwarf flax (*Hesperolinon breweri*) | C | Annual grassland<br>Chaparral and scrub<br>Oak savanna<br>Oak woodland | Generally, restricted to grassland areas within a 500+ buffer from oak woodland and/or chaparral/scrub [d] | May–Jul | ☐ Yes ☒ No |
| Brittlescale (*Atriplex depressa*) | C | Alkali grassland<br>Alkali wetland | Restricted to soils of the Pescadero or Solano soil series; generally found in southeastern region of plan area [d] | May–Oct | ☐ Yes ☒ No |
| Caper-fruited tropidocarpum (*Tropidocarpum capparideum)* | N | Alkali grassland | | Mar–Apr | ☐ Yes ☒ No |
| Contra Costa goldfields (*Lasthenia conjugens*) | N | Alkali grassland<br>Alkali wetland<br>Annual grassland<br>Seasonal wetland | Generally found in vernal pools | Mar–Jun | ☐ Yes ☒ No |
| Diablo Helianthella (*Helianthella castanea*) | C | Chaparral and scrub<br>Oak savanna<br>Oak woodland | Elevations generally above 650 feet [d] | Mar–Jun | ☐ Yes ☒ No |
| Diamond-petaled poppy (*Eschscholzia rhombipetala*) | N | Annual grassland | | Mar–Apr | ☐ Yes ☒ No |
| Large-flowered fiddleneck (*Amsinckia grandiflora*) | N | Annual grassland | Generally on clay soil | Apr–May | ☐ Yes ☒ No |
| Mount Diablo buckwheat (*Eriogonum truncatum*) | N | Annual grassland<br>Chaparral and scrub | Ecotone of grassland and chaparral/scrub | Apr–Sep | ☐ Yes ☒ No |
| Mount Diablo fairy-lantern (*Calochortus pulchellus*) | C | Annual grassland<br>Chaparral and scrub<br>Oak savanna<br>Oak woodland | Elevations generally between 650 and 2,600[d] | Apr–Jun | ☐ Yes ☒ No |
| Mount Diablo Manzanita (*Arctostaphylos auriculata*) | C | Chaparral and scrub | Elevations generally between 700 and 1,860 feet; restricted to the eastern and northern flanks of Mt. Diablo [d] and the vicinity of Black Diamond Mines | Jan–Mar | ☐ Yes ☒ No |
| Recurved larkspur (*Delphinium recurvatum*) | C | Alkali grassland<br>Alkali wetland | | Mar–Jun | ☐ Yes ☒ No |
| Round-leaved filaree (*California macrophylla*) [c] | C | Annual grassland | | Mar–May | ☐ Yes ☒ No |
| San Joaquin spearscale (*Extriplex joaquiniana*) [e] | C | Alkali grassland<br>Alkali wetland | | Apr–Oct | ☐ Yes ☒ No |
| Showy madia (*Madia radiata*) | C | Annual grassland<br>Oak savanna<br>Oak woodland | Primarily occupies open grassland or grassland on edge of oak woodland | Mar–May | ☐ Yes ☒ No |

[a] The species *Navarretia nigelliformis* subsp. *nigelliformis* is no longer considered to occur within Contra Costa County based on specimen annotations at the UC and Jepson Herbaria at the University of California Berkeley as well as the opinions of experts in the genus. This taxon is now recognized as *Navarretia nigelliformis* subsp. *radians.* Any subspecies of *Navarretia nigelliformis* encountered as a part of botanical surveys in support of a PSR should be considered as covered under this HCP/NCCP.

[b] Habitat for the *Navarretia nigelliformis* subspecies that occurs within the inventory are is inaccurately described in the HCP/NCCP as vernal pools. The entity within the Inventory generally occupies clay barrens within Annual Grassland habitat, which is an upland habitat type.

[c] From California Native Plant Society. 2007. *Inventory of Rare and Endangered Plants* (online edition, v7-07d). Sacramento, CA. Species may be identifiable outside of the typical blooming period; a professional botanist shall determine if a covered or no take plant occurs on the project site. Reference population of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant is visible and detectable at the time surveys are conducted.

[d] See Species Profiles in Appendix D of the Final HCP/NCCP. Reference populations of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant species is visible and detectable at the time surveys are conducted.

[e] In the recent update to the Jepson eflora (JFP 2013) *Atriplex joaquinana* has been circumscribed and segregated into a new genus called *Extriplex* based on the work of Elizabeth Zacharias and Bruce Baldwin (2010). The etymology of the genus *Extriplex* means, "beyond or outside Atriplex".

**10) Results of Covered and No-Take Plant Species**

Provide a written summary describing the results of the planning surveys conducted as required in Table 2b. Describe the methods used to survey the site for all covered and no-take plants, including the dates and times of all surveys conducted (see Tables 3-8 and 6-5 of the ECCC HCP/NCCP for covered and no-take plants), including reference populations visited prior to conducting surveys.

If any covered or no-take plant species were found, include the following information in the results summary:

- Description and number of occurrences and their rough population size.
- Description of the "health" of each occurrence, as defined on pages 5-49 and 5-50 of the HCP/NCCP.
- A map of all the occurrences.
- Justification of surveying time window, if outside of the plant's blooming period.
- The CNDDB form(s) submitted to CDFW (if this is a new occurrence).
- A description of the anticipated impacts that the covered activity will have on the occurrence and how the project will avoid impacts to all covered and no-take plant species. If impacts to covered plant species cannot be avoided and plants will be removed by covered activity, the Conservancy must be notified and has the option to salvage the covered plants. All projects must demonstrate avoidance of all six no-take plants (see table 6-5 of the HCP/NCCP).

**Survey Methods**

Surveys to assess potentially suitable habitat for special-status plants were undertaken on October 21, 2020 and May 13, 2022. The site was systematically searched by walking throughout the site.

**Survey Results and Discussion**

The site is ruderal grassland that is periodically mowed and/or disked. Due to an absence of potentially suitable habitat for special-status plants, focused surveys during the blooming period of each species in Table 2b were not warranted.

## IV. SPECIES-SPECIFIC AVOIDANCE AND MINIMIZATION REQUIREMENTS

**Please complete and/or provide the following attachments:**

**1) Species-Specific Avoidance and Minimization for Selected Covered Wildlife**

Complete the following table and check the applicable box for covered species determined by the planning surveys.

**Table 3. Summary of Applicable Preconstruction Surveys, Avoidance and Minimization, and Construction Monitoring Requirements[10]**

| Species | Preconstruction Survey Requirements | Avoidance and Minimization Requirements | Construction Monitoring Required | Info in HCP |
|---|---|---|---|---|
| ☐ San Joaquin kit fox | • On project footprint and 250-ft radius, map all dens (>5 in. diameter) and determine status<br>• Provide written survey results to USFWS within 5 working days after surveying | • Monitor dens<br>• Destroy unoccupied dens<br>• Discourage use of occupied (non-natal) dens | • Establish exclusion zones ( >50 ft for potential dens, and >100 ft for known dens)<br>• Notify USFWS of occupied natal dens | pp. 6-37 to 6-38 |
| ☒ Western burrowing owl | • On project footprint and 500-ft radius, identify and map all owls and burrows, and determine status<br>• Document use of habitat (e.g. breeding, foraging) | • Avoid occupied nests during breeding season (Feb-Sep)<br>• Avoid occupied burrows during nonbreeding season (Sep – Feb)<br>• Install one-way doors in occupied burrow (if avoidance not possible)<br>• Monitor burrows with doors installed | • Establish buffer zones (250 ft around nests)<br>• Establish buffer zones (160 ft around burrows) | pp. 6-39 to 6-41 |

[10] The requirements in this table are not comprehensive; they are detailed in the next section on the following page.

| | | | | |
|---|---|---|---|---|
| ☐ Giant garter snake | • Delineate aquatic habitat up to 200 ft from water's edge on each side<br>• Document any occurrences | • Limit construction to Oct-May<br>• Dewater habitat April 15 – Sep 30 prior to construction<br>• Minimize clearing for construction | • Delineate 200 ft buffer around potential habitat near construction<br>• Provide field report on monitoring efforts<br>• Stop construction activities if snake is encountered; allow snake to passively relocate<br>• Remove temporary fill or debris from construction site<br>• Mandatory training for construction personnel | pp. 6-43 to 6-45 |
| ☐ California tiger salamander | • Provide written notification to USFWS and CDFW regarding timing of construction and likelihood of occurrence on site | • Allow agency staff to translocate species, if requested | • None | p. 6-45 |
| ☐ California red-legged frog | • Provide written notification to USFWS and CDFW regarding timing of construction and likelihood of occurrence on site | • Allow agency staff to translocate species, if requested | • None | p. 6-46 |
| ☐ Covered shrimp | • Establish presence/absence<br>• Document and evaluate use of all habitat features (e.g. vernal pools, rock outcrops) | • Establish buffer near construction activities<br>• Prohibit incompatible activities | • Establish buffer around outer edge of all hydric vegetation associated with habitat (50 ft or immediate watershed, whichever is larger)<br>• Mandatory training for construction personnel | pp. 6-46 to 6-48 |
| ☐ Townsend's big-eared bat | • Establish presence/absence<br>• Determine if potential sites were recently occupied (guano) | • Seal hibernacula before Nov<br>• Seal nursery sites before April<br>• Delay construction near occupied sites until hibernation or nursery seasons are over | • None | pp. 6-36 to 6-37 |
| ☒ Swainson's hawk | • Determine whether potential nests are occupied | • No construction within 1,000 ft of occupied nests within breeding season (March 15 - Sep 15)<br>• If necessary, remove active nest tree after nesting season to prevent occupancy in second year. | • Establish 1,000 ft buffer around active nest and monitor compliance (no activity within established buffer) | pp. 6-41 to 6-43 |
| ☒ Golden Eagle | • Establish presence/absence of nesting eagles | • No construction within ½ mile near active nests (most activity late Jan – Aug) | • Establish ½ mile buffer around active nest and monitor compliance with buffer | pp. 6-38 to 6-39 |

**2) Required Preconstruction Surveys, Avoidance and Minimization, and Construction Monitoring**

All preconstruction surveys shall be conducted in accordance with the requirements set forth in Section 6.4.3, Species-Level Measures, and Table 6-1 of the ECCC HCP/NCCP. Detailed descriptions of preconstruction surveys, avoidance and minimization, and construction monitoring applicable to each of the wildlife species in Table 3 are located below. Please remove the species-specific measures that do not apply to your project (highlight entire section and delete).

**WESTERN BURROWING OWL**

**Preconstruction Surveys**

Prior to any ground disturbance related to covered activities, a USFWS/CDFW- approved biologist will conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1995).

On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1– August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1–January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any

disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

**Avoidance and Minimization and Construction Monitoring**

This measure incorporates avoidance and minimization guidelines from CDFW's *Staff Report on Burrowing Owl Mitigation* (California Department of Fish and Game 1995).

If burrowing owls are found during the breeding season (February 1 – August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the project proponent should avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below).

During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary construction fencing.

If occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

**SWAINSON'S HAWK**

**Preconstruction Survey**

Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15–September 15), a qualified biologist will conduct a preconstruction survey no more than 1 month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see below).

**Avoidance and Minimization and Construction Monitoring**

During the nesting season (March 15–September 15), covered activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the Implementing Entity will coordinate with CDFW/USFWS to determine the appropriate buffer size.

If young fledge prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the Implementing Entity for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place.

All active nest trees will be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities will be mitigated by the project proponent according to the requirements below.

**Mitigation for Loss of Nest Trees**

The loss of non-riparian Swainson's hawk nest trees will be mitigated by the project proponent by:

- If feasible on-site, planting 15 saplings for every tree lost with the objective of having at least 5 mature trees established for every tree lost according to the requirements listed below.

  AND either

  1) Pay the Implementing Entity an additional fee to purchase, plant, maintain, and monitor 15 saplings on the HCP/NCCP Preserve System for every tree lost according to the requirements listed below, OR

  2) The project proponent will plant, maintain, and monitor 15 saplings for every tree lost at a site to be approved by the Implementing Entity (e.g., within an HCP/NCCP Preserve or existing open space linked to HCP/NCCP preserves), according to the requirements listed below.

The following requirements will be met for all planting options:

- Tree survival shall be monitored at least annually for 5 years, then every other year until year 12. All trees lost during the first 5 years will be replaced. Success will be reached at the end of 12 years if at least 5 trees per tree lost survive without supplemental irrigation or protection from herbivory. Trees must also survive for at least three years without irrigation.
- Irrigation and fencing to protect from deer and other herbivores may be needed for the first several years to ensure maximum tree survival.
- Native trees suitable for this site should be planted. When site conditions permit, a variety of native trees will be planted for each tree lost to provide trees with different growth rates, maturation, and life span, and to provide a variety of tree canopy structures for Swainson's hawk. This variety will help to ensure that nest trees will be available in the short term (5-10 years for cottonwoods and willows) and in the long term (e.g., Valley oak, sycamore). This will also minimize the temporal loss of nest trees.
- Riparian woodland restoration conducted as a result of covered activities (i.e., loss of riparian woodland) can be used to offset the nest tree planting requirement above, if the nest trees are riparian species.
- Whenever feasible and when site conditions permit, trees should be planted in clumps together or with existing trees to provide larger areas of suitable nesting habitat and to create a natural buffer between nest trees and adjacent development (if plantings occur on the development site).
- Whenever feasible, plantings on the site should occur closest to suitable foraging habitat outside the UDA.
- Trees planted in the HCP/NCCP preserves or other approved offsite location will occur within the known range of Swainson's hawk in the inventory area and as close as possible to high-quality foraging habitat.

**GOLDEN EAGLE**

**Preconstruction Survey**

Prior to implementation of covered activities, a qualified biologist will conduct a preconstruction survey to establish whether nests of golden eagles are occupied (see Section 6.3.1, *Planning Surveys*). If nests are occupied, minimization requirements and construction monitoring will be required.

**Avoidance and Minimization**

Covered activities will be prohibited within 0.5 mile of active nests. Nests can be built and active at almost any time of the year, although mating and egg incubation occurs late January through August, with peak activity in March through July. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented, the Implementing Entity will coordinate with CDFW/USFWS to determine the appropriate buffer size.

**Construction Monitoring**

Construction monitoring will focus on ensuring that no covered activities occur within the buffer zone established around an active nest. Although no known golden eagle nest sites occur within or near the ULL, covered activities inside and outside of the Preserve System have the potential to disturb golden eagle nest sites. Construction monitoring will ensure that direct effects to golden eagles are minimized.

### 3) Construction Monitoring Plan

Before implementing a covered activity, the applicant will develop and submit a construction monitoring plan to the planning department of the local land use jurisdiction and the East Contra Costa County Habitat Conservancy for review and approval. Elements of a brief construction monitoring plan will include the following:

- Results of planning and preconstruction surveys.[11]
- Description of avoidance and minimization measures to be implemented, including a description of project-specific refinements to the measures or additional measures not included in the HCP/NCCP.
- Description of monitoring activities, including monitoring frequency and duration, and specific activities to be monitored.
- Description of the onsite authority of the construction monitor to modify implementation of the activity.

☒ Check box to acknowledge this requirement.

## V. SPECIFIC CONDITIONS ON COVERED ACTIVITIES

### 1) Check off the HCP conservation measures that apply to the project.

**APPLIES TO ALL PROJECTS**

☒ **Conservation Measure 1.11. Avoid Direct Impacts on Extremely Rare Plants, Fully Protected Wildlife Species, or Migratory Birds.** This conservation measure applies to all projects. All projects will avoid all impacts on extremely rare plants and fully protected species listed in Table 6-5 of the ECCC HCP/NCCP. See HCP pp. 6-23 to 6-25, and Table 6-5.

**APPLIES TO PROJECTS THAT IMPACT COVERED PLANT SPECIES**

☐ **Conservation Measure 3.10. Plant Salvage when Impacts are Unavoidable.** This condition applies to projects that cannot avoid impacts on covered plants and help protect covered plants by prescribing salvage whenever avoidance of impacts is not feasible. Project proponents wishing to remove populations of covered plants must notify the Conservancy of their construction schedule to allow the Conservancy the option of salvaging the populations. See HCP pp. 6-48 to 6-50.

**APPLIES TO PROJECTS THAT INCLUDE ARE ADJACENT TO STREAMS, PONDS, OR WETLANDS**

☐ **Conservation Measure 2.12. Wetland, Pond, and Stream Avoidance and Minimization.** All projects will implement measures described in the HCP to avoid and minimize impacts on wetlands, ponds, streams, and riparian woodland/scrub. See HCP pp. 6-33 to 6-35.

**APPLIES TO NEW DEVELOPMENT PROJECTS**

☒ **Conservation Measure 1.10. Maintain Hydrologic Conditions and Minimize Erosion.** All new development must avoid or minimize direct and indirect impacts on local hydrological conditions and erosion by incorporating the applicable Provision C.3 Amendments of the Contra Costa County Clean Water Program's (CCCCWP's) amended NPDES Permit (order no. R2-2003-0022; permit no. CAS002912). The overall goal of this measure is to ensure that new development covered under the HCP has no or minimal adverse effects on downstream fisheries to avoid take of fish listed under ESA or CESA. See HCP pp. 6-21 to 6-22.

**APPLIES TO NEW DEVELOPMENT PROJECTS THAT INCLUDE OR ARE ADJACENT TO STREAMS, PONDS, OR WETLANDS**

☐ **Conservation Measure 1.7. Establish Stream Setbacks.** A stream setback will be applied to all development projects covered by the HCP according to the stream types listed in Table 6-2 of the HCP. See HCP pp. 6-15 to 6-18 and Table 6-2.

**APPLIES TO NEW DEVELOPMENT PROJECTS ADJACENT TO EXISTING PUBLIC OPEN SPACE, HCP PRESERVES, OR LIKELY HCP ACQUISITION SITES**

☐ **Conservation Measure 1.6. Minimize Development Footprint Adjacent to Open Space.** Project applicants are encouraged to minimize their development footprint and set aside portions of their land to contribute to the HCP Preserve System. Land set aside that contributes to the HCP biological goals and objectives may be credited against development fees. See HCP pages 6-14 to 6-15.

☐ **Conservation Measure 1.8. Establish Fuel Management Buffer to Protect Preserves and Property.** Buffer zones will provide a buffer between development and wildlands that allows adequate fuel management to minimize the risk of wildlife damage to property or to the preserve. The minimum buffer zone for new development is 100 feet. See HCP pages 6-18 to 6-19.

[11] If the preconstruction surveys do not trigger construction monitoring, results of preconstruction surveys should still be submitted to the local jurisdiction and the East Contra Costa County Habitat Conservancy.

☐ **Conservation Measure 1.9. Incorporate Urban-Wildlife Interface Design Elements.** These projects will incorporate design elements at the urban-wildlife interface to minimize the indirect impacts of development on the adjacent preserve. See HCP pp. 6-20 to 6-21.

**APPLIES TO ROAD MAINTENANCE PROJECTS OUTSIDE THE UDA**

☐ **Conservation Measure 1.12. Implement Best Management Practices for Rural Road Maintenance.** Road maintenance activities have the potential to affect covered species by introducing sediment and other pollutants into downstream waterways, spreading invasive weeds, and disturbing breeding wildlife. In order to avoid and minimize these impacts, BMPs described in the HCP will be used where appropriate and feasible. See HCP pp. 6-25 to 6-26.

**APPLIES TO NEW ROADS OR ROAD IMPROVEMENTS OUTSIDE THE UDA**

☐ **Conservation Measure 1.14. Design Requirements for Covered Roads Outside the Urban Development Area (UDA).** New roads or road improvements outside the UDA have impacts on many covered species far beyond the direct impacts of their project footprints. To minimize the impacts of new, expanded, and improved roads in agricultural and natural areas of the inventory area, road and bridge construction projects will adopt siting, design, and construction requirements described in the HCP and listed in Table 6-6. See HCP pp. 6-27 to 6-33 and Table 6-6.

**APPLIES TO FLOOD CONTROL MAINTENANCE ACTIVITIES**

☐ **Conservation Measure 1.13. Implement Best Management Practices for Flood Control Facility Maintenance.** Flood control maintenance activities have the potential to affect covered species by introducing sediment and other pollutants into downstream waterways and disturbing breeding wildlife. In order to avoid and minimize these impacts, BMPs described in the HCP will be used where appropriate and feasible. See HCP pp. 6-26 to 6-27.

**2) For all checked conservation measures, describe how the project will comply with each measure. Attach as Attachment C: Project Compliance to HCP Conditions.**

## VI. MITIGATION MEASURES

**1) Mitigation Fee Calculator(s)**
Complete and attach the fee calculator (use permanent and/or temporary impact fee calculator as appropriate), and attach as **Attachment D: Fee Calculator(s)**.

**2) Briefly describe the amount of fees to be paid and when applicant plans to submit payment.**

The 20.75+/- acre site contains 20.10 acres of ruderal grassland and 0.65 acres of urban land.

The site is within Fee Zone 1 and construction is expected to commence in late-2022.

Using the current fee schedule, fees would be paid on 20.10+/- acres within Fee Zone 1, at a cost of $18,937.95 per acre ($380,652.83). Fees will be paid pursuant to the fee schedule that is in place at the time construction commences.

**ATTACHMENT A: PROJECT DESCRIPTION**

# DeJesus Property

## Project Description

## May 2022

The 20.75+/- acre project site is along the west side of Sellers Road, approximately 0.5 miles south of Sellers Avenue, in Oakley, Contra Costa County, California (Figure 1). The site is within Sections 31 and 32, in Township 2 North, Range 3 East of the USGS 7.5-minute Brentwood topographic quadrangle. The project site includes a parcel encompassing 20.42+/- acres, and an offsite 0.33+/- acre sliver along Sellers Avenue.

MLC Holdings, Inc. plans to divide the property in to a 77-lot residential subdivision with single family medium-sized homes (Figures 2a -2c). Access to the site will be from tow locations along Sellers Avenue. One road will be in the approximate location as the existing access road in to the site and the second access point will be a new road along the south edge of the site. A network of roads and a cul-de-sac will provide access to all of lots in the subdivision. There will be an open space/water quality area in the west part of the site, adjacent to the railroad tracks.

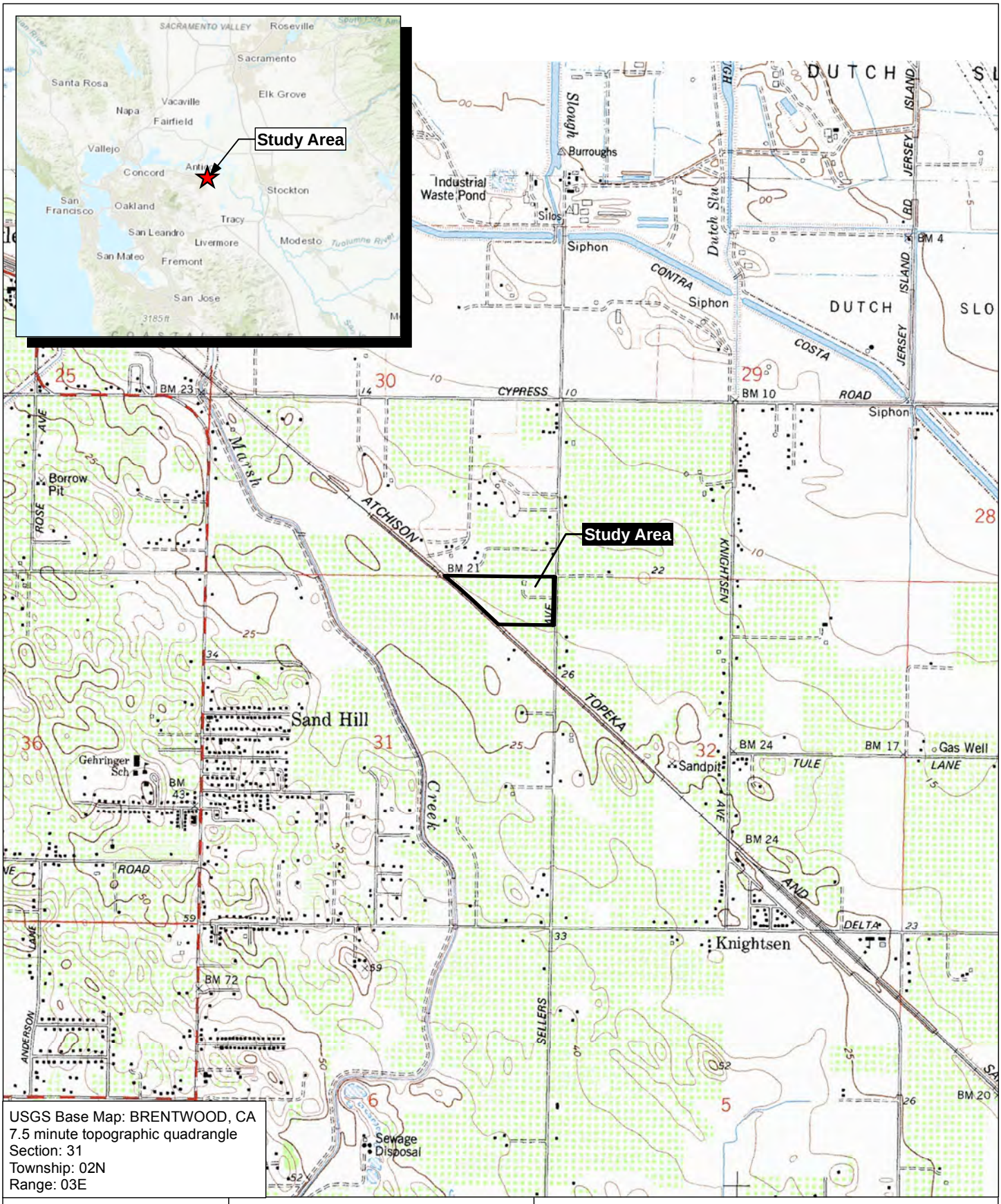
The project may require minor improvements to the edge of Sellers Avenue for shoulder work and/or construction of a sidewalk along the edge of the road. If needed, these off-site improvements will occur on 0.33+/- acres of land immediately east of the site. The north edge of the site is reserved for the future extension of Laurel Road.

The proposed project will connect to existing City infrastructure to provide sewer and water to the site. The storm water will be detained in a water quality treatment basin prior to its discharge into the City's storm drain system.

Standard construction best management practices (BMPs) will be employed during construction to minimize the potential for erosion and off-site transport of fines. BMPs will include use of water trucks, appropriate compaction of soil, and installation of straw wattles, silt fences or other technologies along the perimeter of the site during construction, and stabilization of bare soils as appropriate with seeding, straw, and/or hydromulch.

Construction is expected to begin in late-2022 and is expected to continue through 2023.

**ATTACHMENT B: FIGURES**




USGS Base Map: BRENTWOOD, CA
7.5 minute topographic quadrangle
Section: 31
Township: 02N
Range: 03E

**Figure 1**

0 1,000 2,000
Feet

N
W E
S

**Site Map/USGS**

**DeJesus Property**

***City of Oakley, Contra Costa County, CA***

**Moore Biological Consultants**

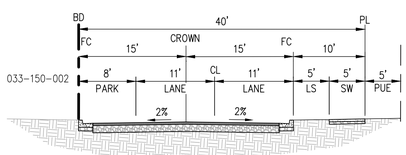
*Map Date: 10/29/2020*

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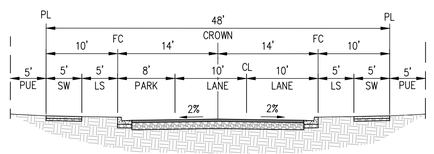



## GENERAL NOTES

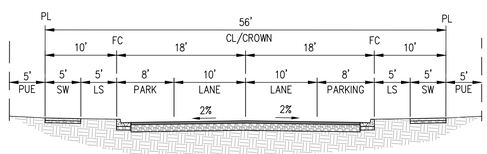
1. ASSESSORS PARCEL NO. 033-150-013
2. SITE AREA: GROSS: 20.42± ACRES
   NET: 18.07± ACRES (SELLERS AVE & LAUREL ROAD DEDICATIONS)
3. LOTS: RESIDENTIAL: 77 (LOTS 1-63)
   PRIVATE STREETS: 5 (PARCEL A)
   OPEN SPACE: 1 (PARCEL B)
4. DWELLING UNITS: 77
5. SITE DENSITY: GROSS: 3.77 DU/AC
   NET: 4.26 DU/AC
6. EXISTING GENERAL PLAN: SINGLE FAMILY RESIDENTIAL – MEDIUM
   PROPOSED GENERAL PLAN: SINGLE FAMILY RESIDENTIAL – MEDIUM
7. EXISTING ZONING: P-1Y (PLANNED DEVELOPMENT)
   PROPOSED ZONING: P-1Y (PLANNED DEVELOPMENT)
8. EXISTING LAND USE: VACANT LAND
   PROPOSED LAND USE: SINGLE FAMILY RESIDENTIAL
9. BENCHMARK: BEING A BRASS DISK STAMPED CONTRA COSTA COUNTY BM #3095, IN CONCRETE NORTHWEST CORNER OF NEW BRIDGE OVER MARSH CREEK, AT ITS INTERSECTION WITH CYPRESS ROAD, 400 FT. EAST OF THE INTERSECTION OF CYPRESS ROAD AND STATE HIGHWAY 4, HAVING AN ELEVATION OF 22.993 FEET
10. BASIS OF BEARINGS: THE BASIS OF BEARINGS FOR THIS SURVEY IS BETWEEN FOUND NGS MONUMENTS, HAVING PID NO. AA3821 AND JS4835, EPOCH 2010, THE BEARING BEING N70°45'54"E (CALCULATED AND MEASURED)
11. FLOOD ZONE: ZONE X: 0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF LESS THAN ONE SQUARE MILE
    SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP, MAP NUMBER 06013C0360G
    DATE: MARCH 21, 2017
12. UTILITIES:
    WATER: DIABLO WATER DISTRICT
    SEWER: IRONHOUSE SANITARY DISTRICT
    STORM DRAIN: CITY OF OAKLEY
    GAS & ELECTRIC: PG&E
    TELEPHONE: AT&T
13. DIMENSIONS: ALL DIMENSIONS ARE PRELIMINARY AND SUBJECT TO FINAL MAP
14. GRADING: GRADING SHOWN IS PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL DESIGN. PAD GRADES SHOWN ON SITE DEVELOPMENT PERMIT PLANS MUST BE IN SUBSTANTIAL CONFORMANCE WITH THOSE DEPICTED ON THE APPROVED TENTATIVE MAP.
15. PHASING: PROJECT MAY BE CONSTRUCTED IN PHASES
16. FINAL MAP: THIS PROJECT MAY BE PHASED. MULTIPLE FINAL MAPS MAY BE FILED UPON APPROVAL OF THE VESTING TENTATIVE SUBDIVISION MAP.




40' STREET SECTION
NOT TO SCALE




48' STREET SECTION
NOT TO SCALE




56' STREET SECTION
NOT TO SCALE

# VESTING TENTATIVE MAP
# DEJESUS PROPERTY
## SELLERS AVENUE

CITY OF OAKLEY CONTRA COSTA COUNTY CALIFORNIA

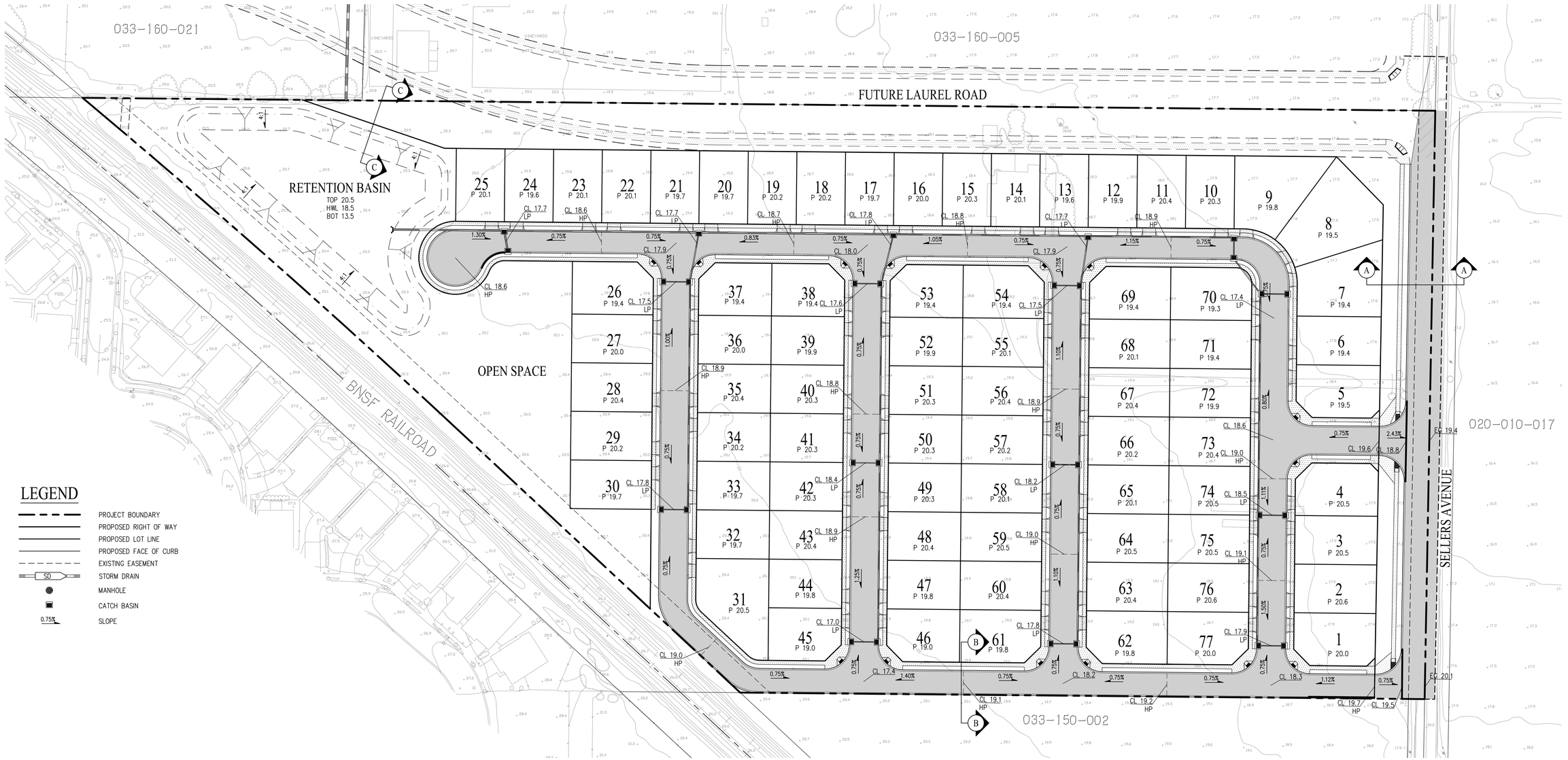
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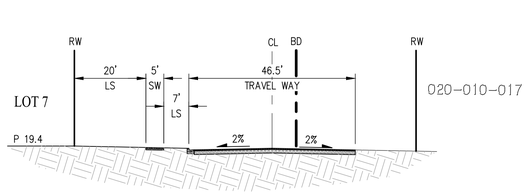
cbg
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SAN RAMON ▪ (925) 866-0322
ROSEVILLE ▪ (916) 788-4456
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SHEET NO.
TM-1

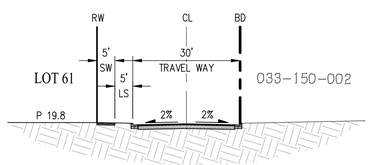
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**Figure 2a: Tcqrgle Rclr_rgtc K_n**

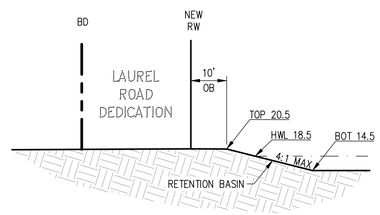



SECTION A-A
NOT TO SCALE




SECTION B-B
NOT TO SCALE




SECTION C-C
NOT TO SCALE

# PRELIMINARY GRADING PLAN
# DEJESUS PROPERTY
## SELLERS AVENUE

CITY OF OAKLEY CONTRA COSTA COUNTY CALIFORNIA

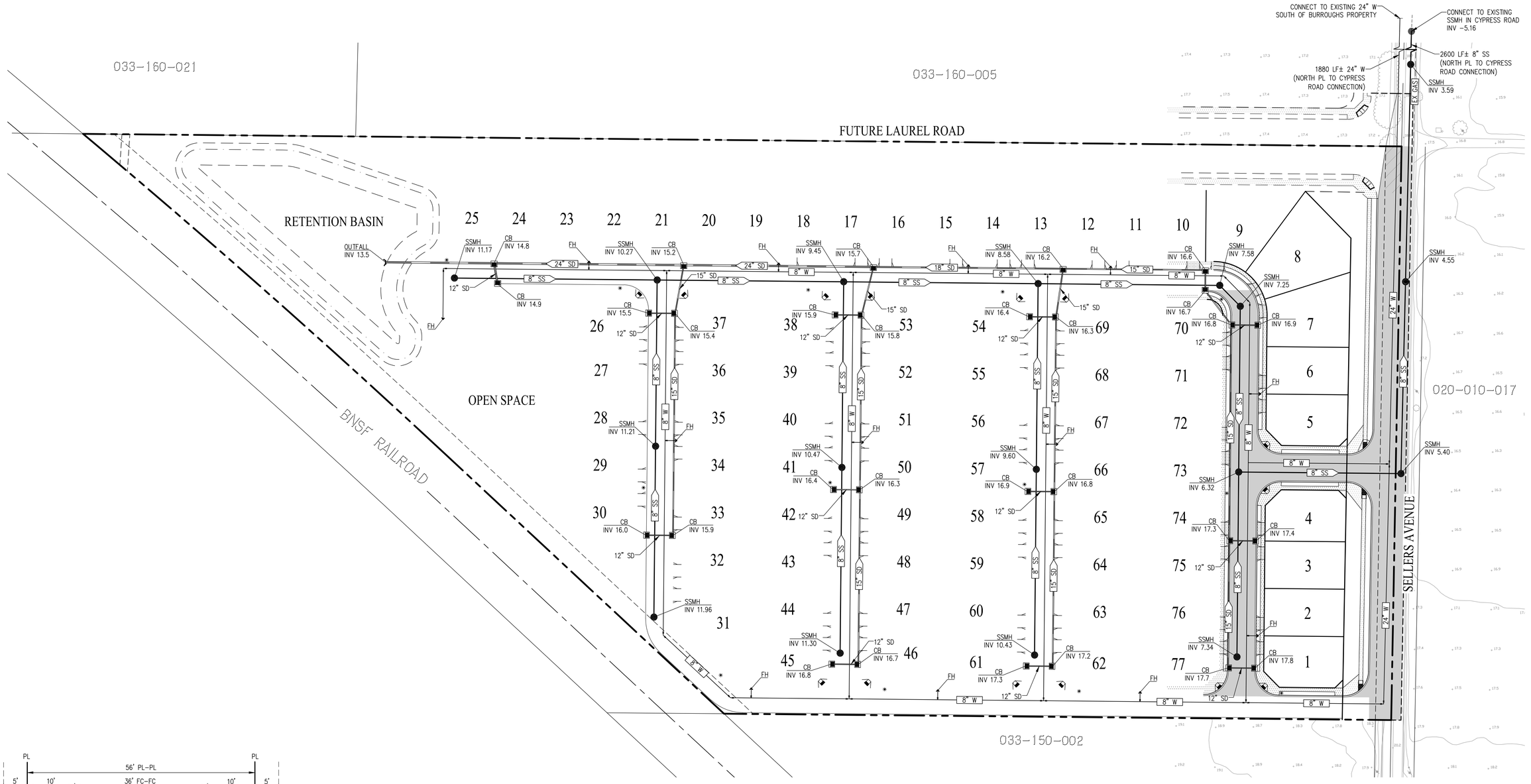
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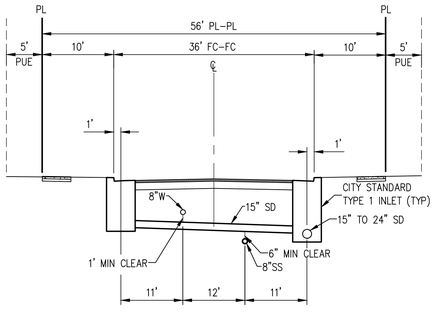
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TM-3

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**Figure 2`: Npcjgkgl_pw Ep_bgle Plan**




TYPICAL UTILITY SECTION
NOT TO SCALE

## LEGEND

- PROJECT BOUNDARY
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED FACE OF CURB
- EXISTING EASEMENT
- SD — STORM DRAIN
- SS — SANITARY SEWER
- W — WATER LINE
- MANHOLE
- CATCH BASIN
- FIRE HYDRANT

# PRELIMINARY UTILITY PLAN
# DEJESUS PROPERTY
## SELLERS AVENUE

CITY OF OAKLEY CONTRA COSTA COUNTY CALIFORNIA

0 60 120 180

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ROSEVILLE ▪ (916) 788-4456
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SHEET NO. TM-4

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**Figure 2c: Npcjgkgl_pw Srgjgrw Plan**




| | | Ruderal Grassland (Acres) | Urban/Developed (Acres) |
|---|---|---|---|
| On-Site | | 19.78 | 0.64 |
| Off-Site | | 0.32 | 0.01 |
| | **Total** | **20.10** | **0.65** |

# Figure 3

On-Site (20.42 ac.)

Off-Site Improvements (0.33 ac.)

Urban/Developed (0.65 ac.)

Ruderal Grassland (20.10 ac.)

N W E S

0 250 500

## Field Verified Landcover Map

## DeJesus Property

*City of Oakley, Contra Costa County, CA*

369

**Moore Biological Consultants**

*Map Date: 10/29/2020*
*Aerial Source: Google Earth (02/2020)*

C:\Users\owner\Documents\EFC INC\Projects\Moore Biological\DeJesus Property\MXD\dejesus property exhibit figure 3.mxd




Rows of recently cut hay in the west part of the site, looking southwest from the north edge of the site; 05/13/22.




Rows of recently cut hay in the body of the site, looking west from the east edge of the site; 05/13/22. This is the location of an old access road from Sellers Avenue to the large barn in the site.

**FIGURE 4a**

**MOORE BIOLOGICAL** **REPRESENTATIVE PHOTOGRAPHS**




East edge of the site, looking north along Sellers Avenue from the southeast corner of the site; 05/13/22. There will be road improvements along Sellers Avenue.




South edge of the site, looking west from the southeast corner of the site; 05/13/22.

**FIGURE 4b**

**MOORE BIOLOGICAL** **REPRESENTATIVE PHOTOGRAPHS**




West edge of the site, looking northwest from the southwest corner of the site; 05/13/22. Railroad tracks are situated just west of the site.




North edge of the site, looking west from the northeast corner of the site; 05/13/22.

**FIGURE 4c**

**MOORE BIOLOGICAL** **REPRESENTATIVE PHOTOGRAPHS**




Large barn and a few smaller structures in the north part of the site, looking northwest; 05/13/22. There are a total of six trees associated with the barn in the site.




Ground squirrel burrows along the west edge of the site; 05/13/22. There are a few ground squirrels burrows within the site, primarily located along the railroad tracks and edges of the site.

**FIGURE 4d**

**MOORE BIOLOGICAL** **REPRESENTATIVE PHOTOGRAPHS**




| | | Ruderal Grassland (Acres) | Urban/Developed (Acres) |
|---|---|---|---|
| On-Site | | 19.78 | 0.64 |
| Off-Site | | 0.32 | 0.01 |
| | **Total** | **20.10** | **0.65** |

**Figure 5a**

On-Site (20.42 ac.)

Off-Site Improvements (0.33 ac.)

Urban/Developed (0.65 ac.)

Ruderal Grassland (20.10 ac.); assumed habitat for western burrowing owl.

Trees; assumed habitat for Swainson's hawk, golden eagle, and white-tailed kite.

N W E S

0 250 500

**Moore Biological Consultants**

*Map Date: 10/29/2020*
*Aerial Source: Google Earth (02/2020)*

## Field Verified Landcover Map

## DeJesus Property

***City of Oakley, Contra Costa County, CA***

374

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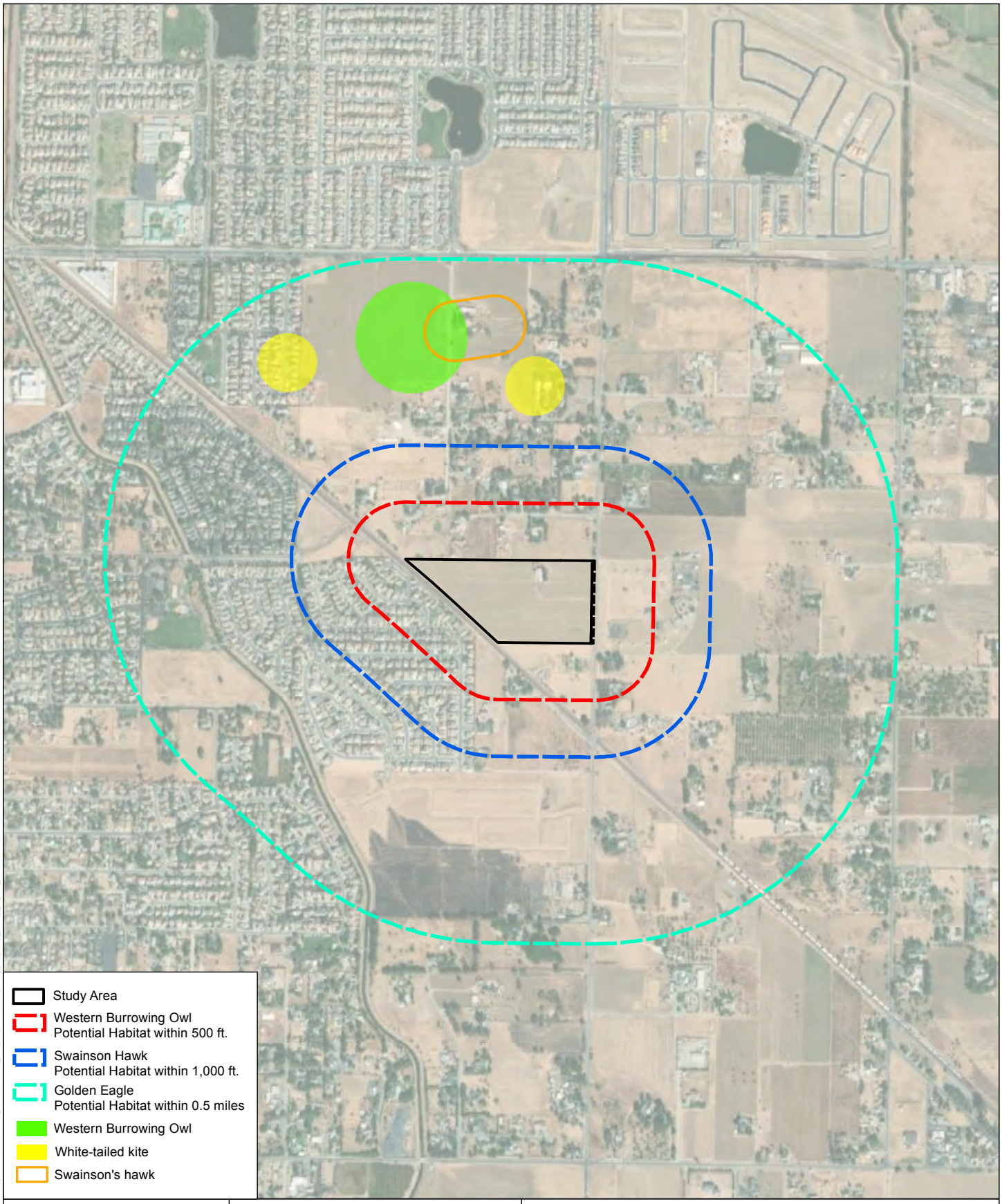



**Figure 5b**

0 500 1,000

N
W E
S

**Regional Species Habitat Map**

## DeJesus Property

*City of Oakley, Contra Costa County, CA*

**Moore Biological Consultants**

*Map Date: 10/29/2020*
*Aerial Photo: DigitalGlobe (2020)*

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**ATTACHMENT C: PROJECT COMPLIANCE TO HCP CONDITIONS**

# DeJesus Property

Project Compliance to HCP Conditions

May 2022

*HCP/NCCP Conservation Measure 1.11. Avoid Direct Impacts on Extremely Rare Plants, Fully Protected Wildlife Species, or Covered Migratory Birds:*

The potential for special-status plants to occur within the site is considered extremely remote, as described in Section III (10).

Species-specific pre-construction surveys, and if needed, monitoring and avoidance requirements for burrowing owl, Swainson's hawk, and golden eagle will be conducted as described in Section IV (2). There is no suitable habitat in the site for ringtail (*Bassariscus astutus*), a "fully protected species," per California Fish and Game Code Section 4700. Similarly, there is no suitable nesting habitat in the site for peregrine falcon (*Falco peregrinus*), a "fully protected species," per California Fish and Game Code Section 3511.

White-tailed kite (*Elanus caeruleus*), another "fully protected species," per California Fish and Game Code Section 3511 could potentially nest in trees in and near the site. This species is documented in CDFW's CNDDB in two locations within 0.5 mile of the site (Figure 5b). Prior to any ground disturbance related to covered activities that occur during the nesting season (March 15-August 31), a qualified biologist will conduct a preconstruction survey no more than 1 month prior to construction to establish whether white-tailed kite is nesting in trees in or visible from the site. In the event active nests are found, the applicant shall notify the Implementing Entity (i.e., City of Oakley) and consult with CDFW for further guidance.

On-site tree, shrubs, and grasslands could be used by other species of nesting birds protected by the Migratory Bird Treaty Act. If possible, vegetation removal will occur outside of the general bird nesting season (February 1 through August 31). Alternately, a qualified biologist will conduct a preconstruction survey no more than 2 weeks prior to vegetation removal. In the event active nests are found, the applicant shall notify the Implementing Entity and consult with CDFW for further guidance.

*HCP/NCCP Conservation Measure 1.10. Maintain Hydrologic Conditions and Minimize Erosion:*

The project has been designed to maintain hydrologic conditions and minimize erosion. Standard construction best management practices (BMPs) will be employed during construction to minimize the potential for erosion and off-site transport of fines. BMPs will include use of water trucks, appropriate compaction of soil, and installation of straw wattles, silt fences or other technologies along the perimeter of the site during construction, and stabilization of bare soils as appropriate with seeding, straw, and/or hydromulch.

**ATTACHMENT D: FEE CALCULATOR**

# ECCC HCP/NCCP 2022 Fee Calculator Worksheet
# Clayton, Oakley, Pittsburg, County, PSE[1]
# Permanent Impacts

**PROJECT APPLICANT:** MLC Holdings, Inc.

**PROJECT NAME:** DeJesus Property

**APN(s):** 033-150-013

**JURISDICTION:** Oakley

**DATE:** May 2022

**DEVELOPMENT FEE**

See appropriate ordinance or HCP/NCCP Figure 9-1 to determine Fee Zone

| | PERMANENT IMPACTS (ACRES) | | 2022 FEE/ACRE *subject to change*[2] | | |
|---|---|---|---|---|---|
| Fee Zone 1 | 20.10 | x | $18,937.95 | = | $380,652.83 |
| Fee Zone 2 | | x | $37,875.90 | = | $0.00 |
| Fee Zone 3 | | x | $9,468.98 | = | $0.00 |
| Fee Zone 4[3] | | x | $28,406.93 | = | $0.00 |
| | | | **Development Fee Total** | = | **$380,652.83** |

**WETLAND MITIGATION FEE**

Impacts to riparian/scrub, wetlands, ponds, aquatic, and slough/channel are charged both a wetland mitigation fee and a development fee. Please also include these impact acres to development fee above.[4]

| | PERMANENT IMPACTS (ACRES) | | 2022 FEE/ACRE *subject to change*[2] | | |
|---|---|---|---|---|---|
| Riparian woodland / scrub | | x | $105,515.99 | = | $0.00 |
| Perennial Wetland | | x | $159,911.71 | = | $0.00 |
| Seasonal Wetland | | x | $374,220.31 | = | $0.00 |
| Alkali Wetland | | x | $378,310.21 | = | $0.00 |
| Ponds | | x | $205,923.71 | = | $0.00 |
| Aquatic (open water) | | x | $102,962.44 | = | $0.00 |
| Slough / Channel | | x | $147,029.10 | = | $0.00 |

| STREAMS | PERMANENT IMPACTS (LINEAR FEET) | | 2022 FEE/LINEAR FT *subject to change*[2] | | |
|---|---|---|---|---|---|
| Streams 25 feet wide or less | | x | $542.59 | = | $0.00 |
| Streams greater than 25 feet wide | | x | $814.47 | = | $0.00 |
| | | | **Wetland Mitigation Fee Total** | = | **$0.00** |

**FEE REDUCTION[5]**

| | | |
|---|---|---|
| Development Fee reduction for land in lieu of fee | = | |
| Development Fee reduction (up to 33% ) for permanent assessments | = | |
| Wetland Mitigation Fee reduction for wetland restoration/creation performed by applicant | = | |
| **Reduction Total** | = | **$0.00** |

**FINAL FEE CALCULATION**

| | | |
|---|---|---|
| Development Fee Total | | $380,652.83 |
| Wetland Mitigation Fee Total | + | $0.00 |
| **Mitigation Fee Subtotal** | = | **$380,652.83** |
| **Contribution to Recovery[6]** | + | |
| **TOTAL AMOUNT TO BE PAID** | = | **$380,652.83** |

[1] The City of Brentwood is on a separate fee schedule until the 2017 Fee Audit has been adopted by the city. For projects within Brentwood, please use the Brentwood fee calculator worksheets.

[2] Development fees are adjusted annually (no later than March 15 of each year) according to a formula that includes both a Home Price Index (HPI) and a Consumer Price Index (CPI). The Wetland Mitigation Fees are adjusted according to a CPI.

[3] Fee Zone 4 is not shown on Figure 9-1 of the HCP/NCCP but refers to the fee applicable to those few covered acitivities located in northeastern Antioch (p. 9-21).

[4] Per Chapter 9.3.1 of the HCP/NCCP, for every acre of impact on wetlands, streams, ponds, and riparian woodland/scrub, applicants will pay the appropriate development fee (according to fee zone) towards land acquisition and the conservation program as a whole, as well as a wetland mitigation fee to cover the costs of successful restoration or creation.

[5] Fee reductions must be reviewed and approved by the Conservancy.

[6] Participating Special Entities (PSEs) are required to pay fees over and above permanent and temporary impact mitigation fees to cover indirect costs of extending permit coverage, including a portion of the costs of the initial preparation of the Plan, and a portion of the costs of conservation actions designed to contribute to species recovery. This amount will be determined in accordance with the Contribution to Recovery Implementation Policy adopted by the Conservancy Governing Board on December 8, 2014.

**March 10, 2022**

# Appendix C
# CNDDB Search Results

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE RareFind

**Query Summary:**
Quad IS (Brentwood (3712186))
AND Other Status CONTAINS (CDFW_FP-Fully Protected OR CDFW_SSC-Species of Special Concern)

Print Close

**CNDDB Element Query Results**

| Scientific Name | Common Name | Taxonomic Group | Element Code | Total Occs | Returned Occs | Federal Status | State Status | Global Rank | State Rank | CA Rare Plant Rank | Other Status | Habitats |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agelaius tricolor | tricolored blackbird | Birds | ABPBXB0020 | 955 | 1 | None | Threatened | G1G2 | S1S2 | null | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern | Freshwater marsh, Marsh & swamp, Swamp, Wetland |
| Anniella pulchra | Northern California legless lizard | Reptiles | ARACC01020 | 383 | 3 | None | None | G3 | S3 | null | CDFW_SSC-Species of Special Concern, USFS_S-Sensitive | Chaparral, Coastal dunes, Coastal scrub |
| Athene cunicularia | burrowing owl | Birds | ABNSB10010 | 2011 | 48 | None | None | G4 | S3 | null | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern | Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland |
| Elanus leucurus | white-tailed kite | Birds | ABNKC06010 | 184 | 4 | None | None | G5 | S3S4 | null | BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern | Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland |
| Emys marmorata | western pond turtle | Reptiles | ARAAD02030 | 1404 | 7 | None | None | G3G4 | S3 | null | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive | Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, Marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland |
| Lanius ludovicianus | loggerhead shrike | Birds | ABPBR01030 | 110 | 1 | None | None | G4 | S4 | null | CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern | Broadleaved upland forest, Desert wash, Joshua tree woodland, Mojavean desert scrub, Pinon & juniper woodlands, Riparian woodland, Sonoran desert scrub |

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

**Query Summary:**
Quad IS (Brentwood (3712186))
AND CA Rare Plant Rank IS (1A OR 1B OR 1B.1 OR 1B.2 OR 1B.3 OR 2A OR 2B OR 2B.1 OR 2B.2 OR 2B.3)

Print Close

**CNDDB Element Query Results**

| Scientific Name | Common Name | Taxonomic Group | Element Code | Total Occs | Returned Occs | Federal Status | State Status | Global Rank | State Rank | CA Rare Plant Rank | Other Status | Habitats |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blepharizonia plumosa | big tarplant | Dicots | PDAST1C011 | 53 | 6 | None | None | G1G2 | S1S2 | 1B.1 | SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden | Valley & foothill grassland |
| Centromadia parryi ssp. congdonii | Congdon's tarplant | Dicots | PDAST4R0P1 | 98 | 1 | None | None | G3T2 | S2 | 1B.1 | BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden | Valley & foothill grassland |
| Cicuta maculata var. bolanderi | Bolander's water-hemlock | Dicots | PDAPI0M051 | 17 | 1 | None | None | G5T4T5 | S2? | 2B.1 | null | Marsh & swamp, Salt marsh, Wetland |
| Extriplex joaquinana | San Joaquin spearscale | Dicots | PDCHE041F3 | 127 | 3 | None | None | G2 | S2 | 1B.2 | BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden | Alkali playa, Chenopod scrub, Meadow & seep, Valley & foothill grassland |
| Hesperolinon breweri | Brewer's western flax | Dicots | PDLIN01030 | 29 | 1 | None | None | G2 | S2 | 1B.2 | null | Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland |
| Oenothera deltoides ssp. howellii | Antioch Dunes evening-primrose | Dicots | PDONA0C0B4 | 10 | 1 | Endangered | Endangered | G5T1 | S1 | 1B.1 | SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley | Interior dunes |
| Symphyotrichum lentum | Suisun Marsh aster | Dicots | PDASTE8470 | 175 | 1 | None | None | G2 | S2 | 1B.2 | SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture | Brackish marsh, Freshwater marsh, Marsh & swamp, Wetland |
| Tropidocarpum capparideum | caper-fruited tropidocarpum | Dicots | PDBRA2R010 | 20 | 1 | None | None | G1 | S1 | 1B.1 | SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive | Valley & foothill grassland |

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE RareFind

**Query Summary:**
Quad IS (Brentwood (3712186))
AND Federal Listing Status IS (Endangered OR Threatened OR Proposed Endangered OR Proposed Threatened OR Candidate) OR State Listing Status IS (Endangered OR Threatened OR Candidate Endangered OR Candidate Threatened)

Print Close

**CNDDB Element Query Results**

| Scientific Name | Common Name | Taxonomic Group | Element Code | Total Occs | Returned Occs | Federal Status | State Status | Global Rank | State Rank | CA Rare Plant Rank | Other Status | Habitats |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agelaius tricolor | tricolored blackbird | Birds | ABPBXB0020 | 955 | 1 | None | Threatened | G1G2 | S1S2 | null | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern | Freshwater marsh, Marsh & swamp, Swamp, Wetland |
| Ambystoma californiense pop. 1 | California tiger salamander - central California DPS | Amphibians | AAAAA01181 | 1265 | 21 | Threatened | Threatened | G2G3T3 | S3 | null | CDFW_WL-Watch List, IUCN_VU-Vulnerable | Cismontane woodland, Meadow & seep, Riparian woodland, Valley & foothill grassland, Vernal pool, Wetland |
| Branchinecta lynchi | vernal pool fairy shrimp | Crustaceans | ICBRA03030 | 796 | 3 | Threatened | None | G3 | S3 | null | IUCN_VU-Vulnerable | Valley & foothill grassland, Vernal pool, Wetland |
| Buteo swainsoni | Swainson's hawk | Birds | ABNKC19070 | 2548 | 11 | None | Threatened | G5 | S3 | null | BLM_S-Sensitive, IUCN_LC-Least Concern | Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland |
| Oenothera deltoides ssp. howellii | Antioch Dunes evening-primrose | Dicots | PDONA0C0B4 | 10 | 1 | Endangered | Endangered | G5T1 | S1 | 1B.1 | SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley | Interior dunes |
| Vulpes macrotis mutica | San Joaquin kit fox | Mammals | AMAJA03041 | 1020 | 3 | Endangered | Threatened | G4T2 | S2 | null | null | Chenopod scrub, Valley & foothill grassland |

# Appendix D
# Traffic Impact Analysis

# Sellers Avenue Residential Development

# Draft Traffic Impact Analysis

Oakley, CA

August 1, 2022

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# 1.0 INTRODUCTION

This report describes results of the Transportation Impact Assessment (TIA) for a proposed Sellers Road residential development in the City of Oakley in Contra Costa County. The project site is located in east Oakley, on the southwest corner of the future intersection at Sellers Road and E. Laurel Road. The proposed residential development includes 85 single-family residential lots. The entire development is within the City of Oakley. Direct access to and from the site is proposed via two proposed driveways on Sellers Road. There are no existing sidewalks on Sellers Road in the vicinity of the project area.

This chapter discusses the TIS Purpose, project study area, and analysis scenarios. **Figure 1** shows the study area and project site location. **Figure 2** shows the project site plan, dated November 2021.

## 1.1 Study Purpose

The purpose of the TIA is to evaluate potential transportation impacts that could result from the proposed project, identify short-term and long-term multi-modal circulation needs where relevant to site access and/or project impacts, identify potential mitigation measures for any significant transportation impacts, and evaluate the adequacy of the proposed site plan for accommodating multi-modal site access and meeting City of Oakley Guidelines.

## 1.2 Study Intersections

TJKM evaluated transportation conditions at three existing study intersections, and one proposed new driveway which would provide access to the project site. All intersections were evaluated based on conditions provided from recent traffic counts conducted for the a.m. (7:00 a.m.-9:00 a.m.) and p.m. (4:00 p.m.-6:00 p.m.) peak periods for a typical weekday. The following study intersections were selected in consultation with City staff based on the anticipated trip generation and travel pattern for project trips:

1. E. Cypress Road / Sellers Avenue
2. Sellers Avenue / Future E. Laurel Road*
3. Sellers Avenue / Delta Road
4. Sellers Avenue / Project Access 1**
5. Sellers Avenue / Project Access 2**
6. Main Street / E. Laurel Road
7. Main Street / Delta Road

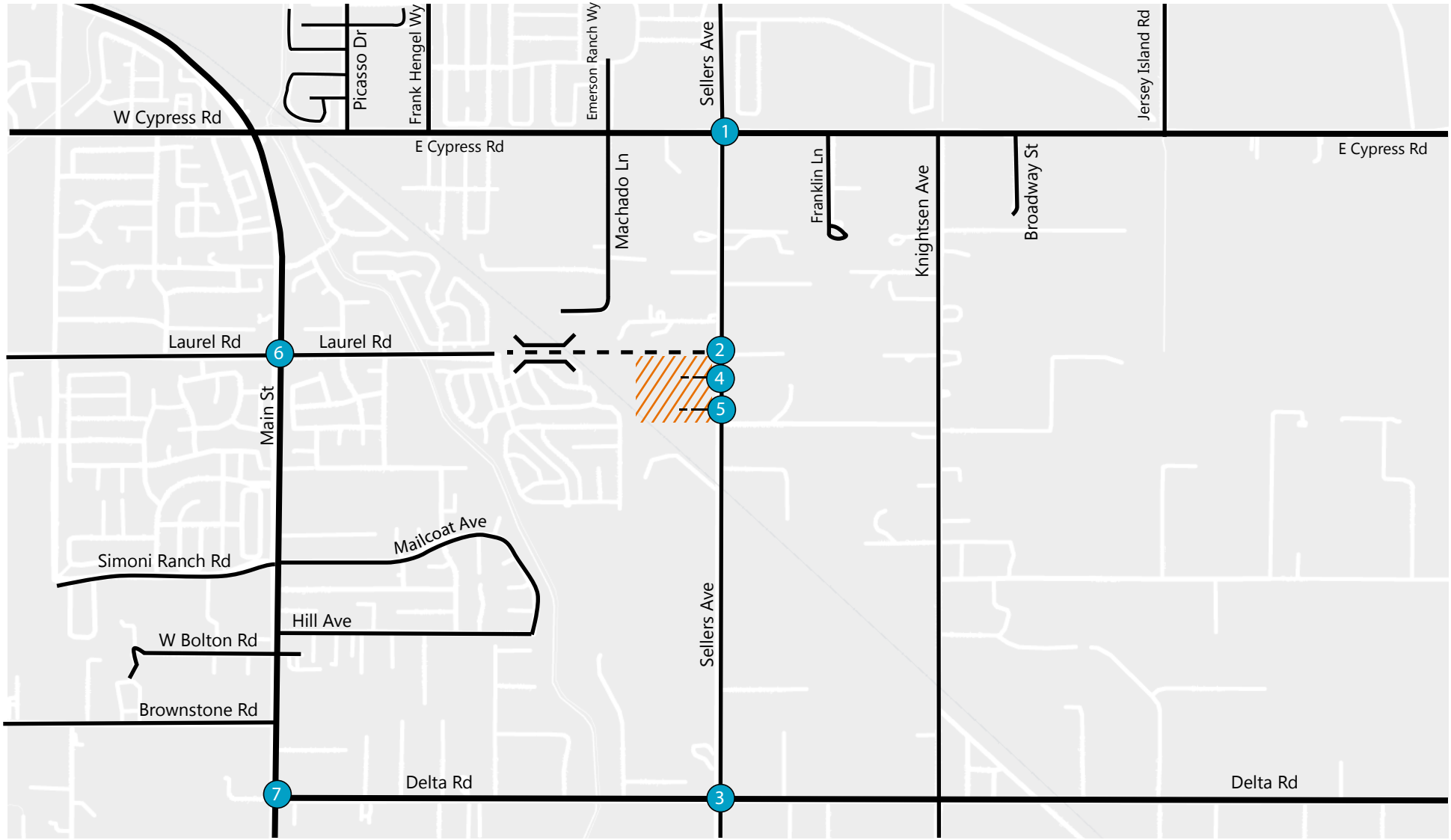
*Indicates intersection would be evaluated under Background scenarios only
**Indicates intersection would be evaluated under "plus Project" scenarios only

## 1.3 Study Scenarios

The roadway operations analysis addresses the following six traffic scenarios:

- ***Existing Conditions*** – This scenario describes existing transportation conditions in the study area based on the current roadway and sidewalk network characteristics, transit service, and the existing Oakley Citywide Traffic Model.
- ***Existing plus Project Conditions*** – This scenario is similar to Existing Conditions but with the additions of net new trips that would be generated by the project.
- ***Background Conditions*** –This scenario describes the projected peak hour traffic operations based on the net change to travel patterns anticipated from approved (but not yet constructed) or fully/partially occupied developments in the City at the time of the Existing Conditions assessment. This includes additional trips that would be generated if the proposed approved developments were to operate at full occupancy. The conditions in this scenario were developed using the Updated Citywide Vistro Model.
- ***Background plus Project Conditions*** – This scenario is similar to Background Conditions but with the inclusion of vehicle trips that would be generated by the project. The Background plus Project Conditions analysis provides an assessment of project impacts that takes into account other projects that would be completed within a similar timeframe as the project.

## *Figure 1: Vicinity Map*



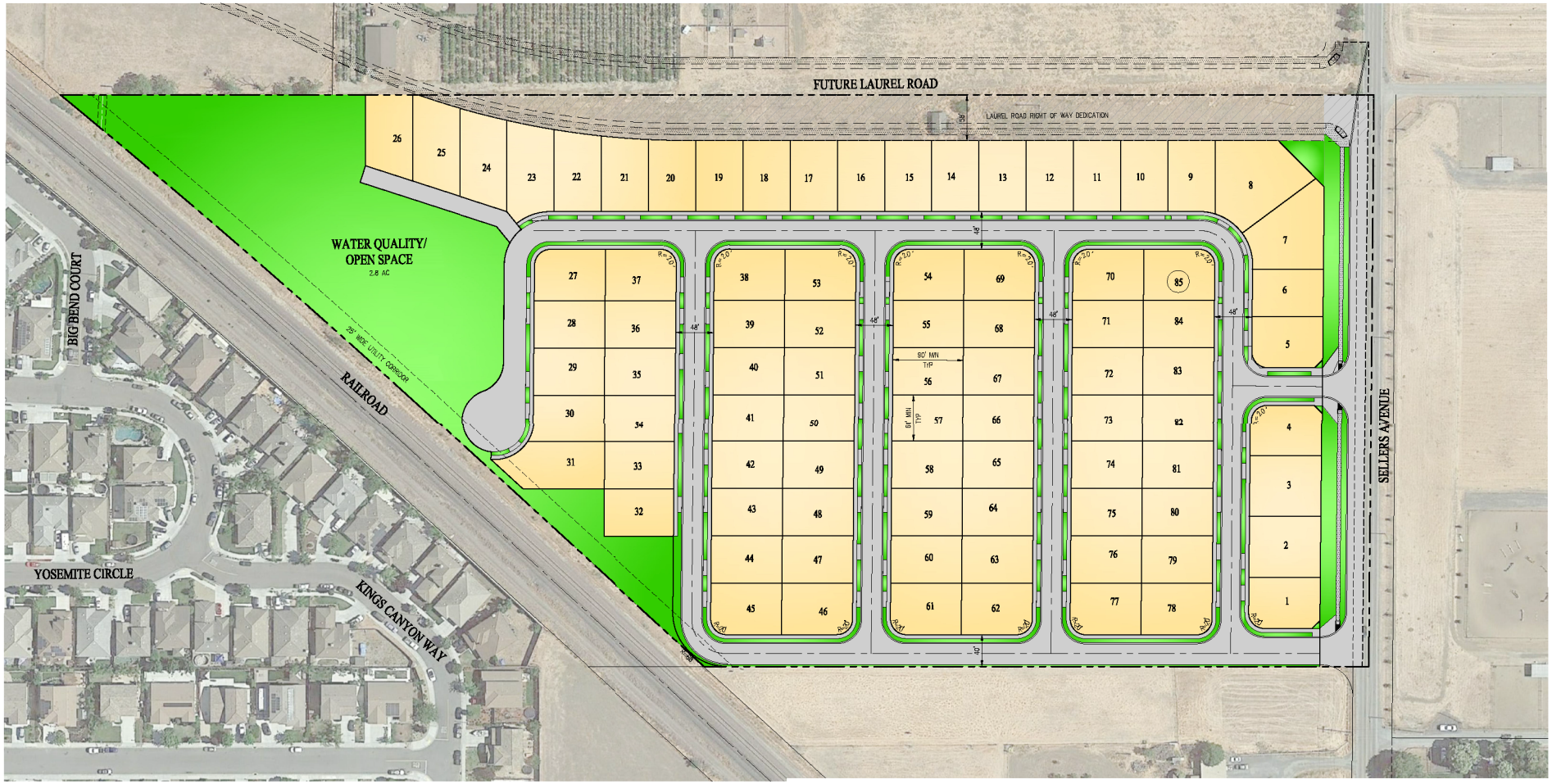

**LEGEND**

(x) Study Intersection  ---  Project Entrance  Project Site

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## *Figure 2: Site Plan*




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# 2.0 STUDY METHODOLOGY

## 2.1 Vehicle Miles Traveled

The City of Oakley has not yet established standards of significance for vehicle miles traveled which is now a mandatory CEQA component of traffic studies. The Governor's Office of Planning and Research (OPR) *Technical Advisory* (December 2018) provides guidance to analysts and local jurisdictions for implementing VMT as a metric for determining the transportation impact for land use projects. The OPR guidelines state that for analysis purposes, "VMT" refers to automobile VMT, specifically passenger vehicles and light trucks. Heavy truck traffic is typically excluded. This study evaluates project-related VMT as outlined in the adopted CCTA VMT methodology. The methodology and implementation guidelines were adopted by CCTA in July 2020.

The CCTA guidelines include a screening process that describes five scenarios in which a project would be exempted from a VMT analysis requirement: 1) projects exempt from CEQA analysis, 2) small projects, 3) local serving projects, 4) projects in transit priority areas, and 5) projects in low VMT areas. It should be noted that even if a project satisfies one or more of the screening criteria, lead agencies may still require a VMT analysis if there is evidence that the project has characteristics that might lead to a significant amount of VMT. The project does not satisfy the requirements for screening criteria 1-4.

Under the CCTA VMT methodology, a low VMT area is defined as a city or unincorporated portion within one of the CCTA subregions where home-based VMT per resident is at least 15 percent below the countywide or where the commute VMT per employee is at least 15 percent below the regional average. A conservative reading of the methodology would indicate that when the citywide average VMT per resident is above the countywide average, projects cannot be screened out based on location, and a VMT analysis must be completed. In such cases, the appropriate significance thresholds based on countywide or regional average would be applied. The methodology also permits the applicable average VMT for the subject municipality or unincorporated CCTA subregion to be utilized instead of the countywide or regional average, if it is less stringent.

Under CCTA guidelines, a residential project would have a significant impact on VMT if it would generate residential VMT per capita higher than 85 percent of the City of Oakley average.

## 2.2 Level of Service Analysis Methodology

Level of Service (LOS) is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. LOS generally describes these conditions in terms of speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. The operational LOS are given letter designations from A to F, with A representing the best operating conditions (free-flow with little or no delay) and F representing the worst conditions (severely congested flow with high delays). Intersections are generally the capacity-controlling locations, with respect to traffic operations, on arterial and collector streets.

**Signalized Intersections**

The study intersections under traffic signal control were analyzed using Highway Capacity Manual 6th Edition (HCM 6) Operations Methodology for Signalized Intersections (Transportation Research Board, 2016), as described in Chapter 19. This methodology determines LOS based on overall average control delay per vehicle for the intersection during peak hour operating conditions. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The average control delay for signalized intersections was calculated using Vistro analysis software version 7.00-05 and correlated to a LOS designation. **Table 1** presents the HCM 6 delay and LOS definitions.

**Unsignalized Intersections**

Stop-control study intersections were analyzed using HCM 6 Operations Methodology for Unsignalized Intersections, as described in Chapters 20 and 21. LOS ratings for stop-control intersections are based on average control delay expressed in seconds per vehicle. At the side street of one-way stop-controlled intersections or two-way stop sign intersections, the control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. The weighted average delay for the entire intersections is presented for all-way stop-controlled (AWSC) intersections, while the worst-movement delay is presented for side-street stop-controlled intersections. The average control delay for unsignalized intersections was calculated using Vistro analysis software version (7.00-04) and correlated to a LOS designation. At an unsignalized intersection, most of the major street traffic is not delayed, and by definition has acceptable conditions. The major street left-turn movements and minor street movements are all susceptible to delay of varying degrees. Generally, higher major street traffic volumes are associated with higher delay for minor movements. HCM 6 definitions for delay and LOS at signalized intersections are presented in **Table 1**. The analysis methodology described above was used to measure a.m. and p.m. peak hour traffic operations for all study intersections.

**Table 1** describes the LOS thresholds from the HCM 6th edition for intersections. The intersection LOS thresholds differ between signalized and unsignalized intersections.

**Table 1: Level of Service Thresholds Based on Intersection Control Delay**

| Level of Service | Description | Signalized Intersection Delay (D) (sec) | Unsignalized Intersection Delay (D) (sec) |
|---|---|---|---|
| A | Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values. | $0 \leq D \leq 10$ | $0 \leq D \leq 10$ |
| B | Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay. | $10 < D \leq 20$ | $10 < D \leq 15$ |

| | | | |
|---|---|---|---|
| C | Control delay greater than 20 and up to 35 seconds per vehicle. Fair progression or longer cycle lengths, or both cause higher delays. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping. | 20 < D ≤ 35 | 15 < D ≤ 25 |
| D | Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable. | 35 < D ≤ 55 | 25 < D ≤ 35 |
| E | Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent. | 55 < D ≤ 80 | 35 < D ≤ 50 |
| F | Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay. | 80 < D | 50 < D |

Source: HCM 6th Edition

## 2.3 Level of Service Standards

Although level of service is no longer used for identifying impacts under CEQA, level of service analysis is still used for determining consistency with adopted agency plans and standards. Where standards refer to significant environmental impacts, this analysis instead identifies these as significant inconsistencies with adopted plans. In most cases, in this report LOS exceedances are characterized as *substantial*.

Per the City of Oakley General Plan, LOS D or a volume-to-capacity (V/C) ratio of 0.90 are the thresholds of acceptability for signalized intersections. Any signalized intersection operating worse than LOS D would be considered inconsistent with this standard. The intersection of Main Street and E. Cypress Road, which is a CMP intersection (Contra Costa County 2019 Congestion Management Program, CCTA, 2019), and the intersections along Main Street at Laurel Road and Delta Road, which are within Priority Development Areas (Plan Bay Area 2040, Metropolitan Transportation Commission, 2017), have standards of LOS E or better. For this study, the study intersections were analyzed using HCM 6th Edition Methodology as per the City's guidance. Average control delay is reported in seconds per vehicle for signalized and all-way-stop-control intersections and critical delay for minor approaches is reported for two-way-stop-control intersections. Intersections operating worse than LOS D are considered inconsistent with the City's standard.

Appendix G of the State CEQA Guidelines includes criteria for potential transportation impacts. Although no longer applicable for CEQA, they are still relevant issues for consideration by Oakley. These include whether a project would result in one of the following:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, bicycle and pedestrian paths, and mass transit.
- Conflict with an applicable congestion management program, including, but not limited to LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.
- Section 4B of the Contra Costa County Transportation Analysis Guidelines identifies significance criteria based on level of service analysis results. Significant impacts occur if:
- The addition of project traffic results in the degradation of intersection operations from acceptable LOS D or better to unacceptable operations (LOS E or LOS F), except for intersections in Priority Development Areas ("PDA") where the minimum acceptable operational standard is LOS E. This document refers to these exceedances as "substantial".
- The addition of project traffic to an intersection operating unacceptably before the addition of project trips results in an increase in average controlled delay (for signalized and all-way stop-controlled intersections) or worst movement/approach delay (for side-street stop-controlled intersections) at the intersection by 5.0 seconds or more.

# 3.0 EXISTING CONDITIONS

This section describes existing conditions in the immediate project site vicinity, including roadway facilities, bicycle and pedestrian facilities, and available transit service. In addition, existing traffic volumes and operations are presented for the study intersections, including the results of LOS calculations.

## 3.1 Existing Setting and Roadway System

Relevant roadways in the project vicinity are discussed below and shown in **Figure 1.**

***E. Cypress Road*** – E. Cypress Road is a two to four lane major arterial roadway. E. Cypress Road extends east-west between Main Street and Sandmound Boulevard. Residential, school, and agricultural uses, along with vacant land, characterize the lands along both sides of E. Cypress Road. Posted speed limits on E. Cypress Road are 35 miles per hour (mph) between Main Street and Frank Hengel Way and east of Summer Lake Drive, 45 mph between Frank Hengel Way and Sellers Avenue and between Bethel Island Road and Summer Lake Drive, and 50 mph between Sellers Avenue and Bethel Island Road.

***Sellers Avenue*** – Sellers Avenue is a two lane, north-south collector roadway north of E. Cypress Road, and minor arterial south of E. Cypress Road. Residential and agricultural uses characterize the lands along both sides of Sellers Avenue. The maximum posted speed limit on Sellers Avenue is 50 mph between E. Cypress Road and Delta Road.

***Laurel Road*** – Laurel Road is a two- to four-lane, east-west divided roadway. Currently, Laurel Road extends to Teton Road in the east and terminates at SR 4 to the west. Laurel Road mainly serves to collect and distribute traffic to/from residential streets and SR 4. In the future Laurel Road will extend to Sellers Avenue in the east and will be widened to four lanes for the portion east of Main Street. The posted speed limit on Laurel Road ranges between 35 to 40 mph near the project site.

***Main Street*** – Main Street is a two to four lane major arterial roadway. Main Street is currently the major north-south transportation corridor in the City of Oakley. Mixed residential, commercial, and agricultural uses characterize the lands along both sides of Main Street between Rose Avenue and Laurel Avenue. Maximum speeds posted on Main Street are 35 mph west of Rose Avenue, 45 mph between Rose Avenue and Bernard Road, and 40 mph south of Bernard Road.

***Delta Road*** – Delta Road is a two-lane, east-west rural road that extends east from Main Street providing connection to the north end of the planned Byron Highway. Delta Road mainly provides access to residential and agricultural land uses. The posted speed limit on Delta Road is 40 mph.

## 3.2 Existing Pedestrian Facilities

Walkability is defined as the ability to travel easily and safely between various origins and destinations without having to rely on automobiles or other motorized travel. The ideal "walkable" community includes wide sidewalks, a mix of land uses providing residential, employment, and shopping opportunities, minimal conflict points with vehicle traffic, and access to transit facilities and services.

Pedestrian facilities are comprised of crosswalks, sidewalks, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access destinations such as institutions, businesses, public transportation, and recreation facilities.

There are no existing sidewalks provided along the project frontage. The closest sidewalk network is located on the north side of E. Cypress Road at the intersection of E. Cypress Road and Sellers Avenue; on both sides of Main Street, south of Laurel Road; and on the south side of Laurel Road, east and west of Main Street.

## 3.3 Existing Bicycle Facilities

Bicycle facilities include the following:

**Multi-Use Paths (Class I)** – A path physically separated from motor vehicle traffic by an open space or barrier, and either within a highway or an independent right-of-way (ROW), used by bicyclists, pedestrians, joggers, skaters, and other non-motorized travelers. Class I paths are the most popular type of facility. Because the availability of uninterrupted ROW is limited, this type of facility may be difficult to locate and expensive to build, relative to other types of bicycle facilities, but inexpensive compared to new roadways. Ideal locations for bike paths are areas such as powerline easements, utility easements, canal banks, river levees, drainage easements, railroad or highway ROW, or regional community parks.

**Bike Lanes (Class II)** – A portion of a roadway designated by striping and pavement markings for the preferential or exclusive use of bicyclists. Bike lanes are intended to promote an orderly flow of bicycle and vehicle traffic. This type of facility is established by using the appropriate striping, pavement legends, and signs.

**Bike Routes (Class III)** – Bike routes are shared facilities between bicycle and motor vehicle traffic. They provide for specific bicycle demand and may be used to connect discontinuous segments of bike lanes. In addition, bike routes are located on residential streets and rural roads. If the pavement width is sufficient, and traffic volume/speeds warrant, an edge line may be painted to further delineate the bike route. Bike routes are signed with the G-93 Bike Route marker but no striping or legends are required.

The City of Oakley General Plan (September 2002), City of Oakley Parks, Recreation, and Trails Master Plan 2020 (Summer 2007), and the Contra Costa County Bicycle and Pedestrian Plan (October 2009) propose that several new bicycle facilities be constructed in the future which includes trunk line bikeway network passing through Main Street and Laurel Road and a local multi-use trail on E. Cypress Road and Sellers Avenue in the vicinity of the project area.

The existing bicycle facilities are at the following locations:

- East Cypress Road – Class II bicycle facilities are provided on the north side between Knightsen Avenue and Main Street, and on the south side between Main Street and 790 feet east of Frank Hengel Way.
- Main Street- Class II bicycle facilities are provided between Cypress Road and Simoni Ranch Road on both sides.
- Sellers Avenue – Class II bicycle facilities are provided north of E. Cypress Road.
- Laurel Road- Class II bicycle facilities are provided between Harvest Drive and Main Street on both sides.
- Marsh Creek Regional Trail- Class I bicycle facility provided along Marsh Creek which can be accessed through Delta road approximately 1.5 miles west of the project site.

- Via Delta de Anza Trail- Class I bicycle facility provided along Contra Costa Canal which can be accessed through Cypress Road and O' Hara Avenue approximately two miles west of the project site.

## 3.4 Existing Transit Facilities

Tri-Delta Transit provides transit services in the City of Oakley, with three lines connecting Brentwood and the Pittsburg/Bay Point Bay Area Rapid Transit (BART) station. Due to COVID-19 conditions, some of the routes and schedules may not currently be in full operation.

- *Route 300,* the Pittsburg BART/Brentwood Park & Ride route, is a weekday express route connecting Brentwood to the Pittsburg/Bay Point BART station via Oakley and Antioch. This bus travels along Main Street, operating from 4:15 a.m. to approximately 10:00 p.m. with 15 to 30-minute headways.
- *Route 383,* the Oakley/Antioch/Freedom High School route, connects Oakley to Antioch and Freedom High School in Oakley. This route, in both clockwise and counterclockwise directions, provides only weekday service. The counterclockwise route runs with approximate one-hour headways, and the clockwise route runs twice during the a.m. peak hour period only.
- *Route 391,* the BART/Pittsburg/Antioch/Oakley/Brentwood route, provides weekday service to most East County Cities. The route operates from 4:00 a.m. to 1:15 a.m. with 30 to 60-minute headways.
- *Route 393*, the BART/Pittsburg/Antioch/Oakley/Brentwood route, provides weekend service to Route 391. The route operates from 5:20 a.m. to 2:00 a.m. with approximately 60-minute headways.

Routes 391 and 393 operate via bus stops located at the study intersections of Main Street and Laurel Road, and Main Street and Delta Road. **Table 2** summarizes the services and frequency during the weekday and on weekends for transit in the City of Oakley. **Figure 3** shows a map of transit routes operated by Tri-Delta Transit.

**Table 2: Existing Transit Facilities**

| Route | From | To | Weekdays | | Saturday | | Sunday | |
|---|---|---|---|---|---|---|---|---|
| | | | Hours | Headway (min) | Hours | Headway (min) | Hours | Headway (min) |
| **300** | Pittsburg/ Bay Point BART Station | Brentwood Park & Ride | 4:15 a.m. – 10:00 p.m. | 10-30 | .... | .... | .... | .... |
| **383** | Antioch Park & Ride | Antioch Park & Ride 1 | 6:52 a.m. – 5:26 p.m. | 60-120 | .... | .... | .... | .... |
| **391** | Pittsburg/ Bay Point BART Station | Brentwood Park & Ride | 4:03 a.m. - 1:14 a.m. | 30-60 | .... | .... | .... | .... |
| **393** | Pacifica & Mariners Cove | Brentwood Park & Ride | .... | .... | 5:22 a.m. – 1:39 a.m. | 60 | 6:24 a.m. – 1:49 a.m. | 60 |

Source: www.trideltatransit.com

## *Figure 3: Transit Service Map*




N

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## 3.5 Existing Traffic Conditions

The Existing Conditions turning movement volumes for vehicles, bicycles and pedestrians at all study intersections reflect those of the most recently approved City of Oakley Citywide Model for the a.m. and p.m. peak hours. Since the City of Oakley is currently in the process of updating the model, the analysis may be updated with current counts at all intersections. Existing lane patterns and traffic control are illustrated in **Figure 4.** Existing turning movement volumes at each existing study intersection are illustrated in **Figure 5**.

## 3.6 Intersection Level of Service Analysis – Existing Conditions

Under Existing Conditions, intersections were analyzed based on lane geometries and traffic controls provided by the Existing Conditions scenario of the Citywide Traffic Model and observed in the field. **Table 3** summarizes peak hour levels of service at the study intersections under Existing Conditions. Detailed LOS worksheets for this scenario are provided in **Appendix A**. Under Existing Conditions, all study intersections operate within acceptable jurisdictional standards of LOS D/E or better during both peak hours, except the intersection at Main Street/Delta Road (Intersection #7), which operate at LOS F during the a.m. peak hour.

**Table 3: Intersection Level of Service Analysis – Existing Conditions**

| ID | Intersection | Control[2] | Peak Hour[3] | Existing Conditions | |
|---|---|---|---|---|---|
| | | | | Average Delay[4] | LOS[5] |
| 1 | Sellers Road / E. Cypress Road* | Signalized | A.M. | 18.4 | B |
| | | | P.M. | 17.2 | B |
| 2 | Sellers Road / Laurel Road*** | Signalized | A.M. | - | - |
| | | | P.M. | - | - |
| 3 | Sellers Road / Delta Road | AWSC | A.M. | 9.4 | A |
| | | | P.M. | 13.0 | B |
| 4 | Sellers Road / Project Access 1** | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 5 | Seller Road / Project Access 2** | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 6 | Main Street / Laurel Road*[1] | Signalized | A.M. | 40.7 | D |
| | | | P.M. | 32.8 | C |
| 7 | Main Street / Delta Road*[1] | TWSC | A.M. | **70.2** | **F** |
| | | | P.M. | 40.5 | E |

Notes: **Bold** text indicates unacceptable intersection operations.

*Indicates Routes of Regional Significance (East County Action Plan, CCTA, 2019).

**Analyzed under plus Project Scenarios, only.

***Analyzed under Background Scenarios, only.

[1]Indicates intersection is located in Priority Development Area and has standard of LOS E (Plan Bay Area 2050).

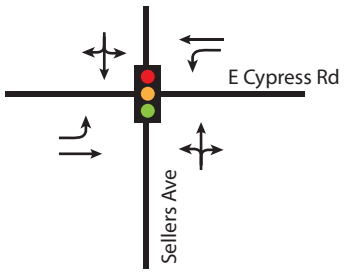
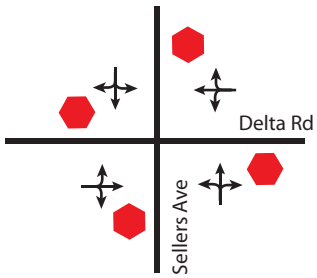
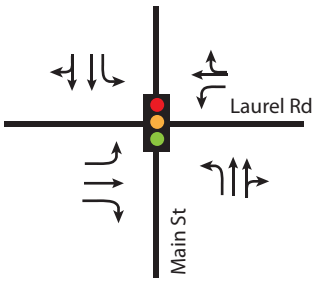
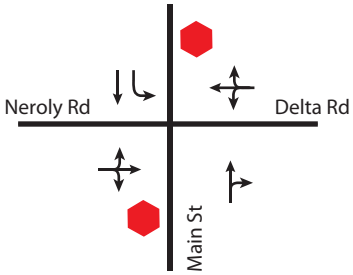
[2]AWSC – All-way stop control; TWSC – Two-way stop control.

[3]A.M. – Morning peak hour; P.M. – Evening peak hour.

[4]Delay: Average control delay in seconds per vehicle, reported values are overall for signalized and all-way-stop-control intersections; and critical minor approaches for one- and two-way stop-control intersections.

[5]LOS: Level of Service.

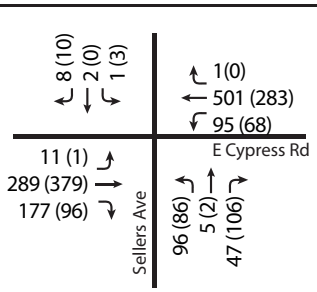
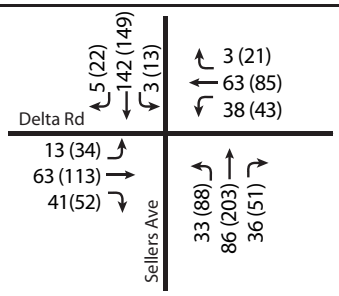
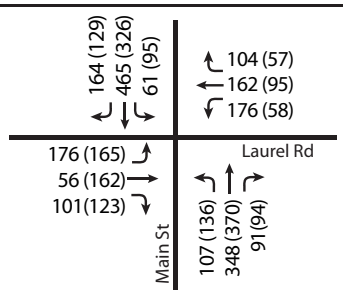
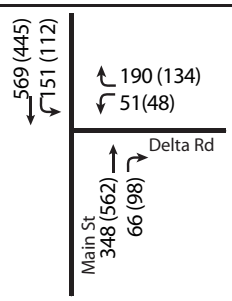
## *Figure 4: Existing Lane Patterns and Traffic Control*

| Intersection #1<br>Sellers Rd/E Cypress Rd | Intersection #3<br>Sellers Rd / Delta Rd | Intersection #6<br>Main St / Laurel Rd | Intersection #7<br>Main St / Delta Rd |
|---|---|---|---|
|  |  |  |  |

**LEGEND**

Traffic Signal  Stop Sign

## *Figure 5: Existing Peak Hour Traffic Volumes*

| Intersection #1<br>Sellers Rd/E Cypress Rd | Intersection #3<br>Sellers Rd / Delta Rd | Intersection #6<br>Main St / Laurel Rd | Intersection #7<br>Main St / Delta Rd |
|---|---|---|---|
|  |  |  |  |

**LEGEND**

XX AM Peak Hour Traffic Volume

(XX) PM Peak Hour Traffic Volume

# 4.0 EXISTING PLUS PROJECT CONDITIONS

## 4.1 Vehicle Miles Traveled

TJKM conducted Vehicle Miles Travelled (VMT) analysis for the project in compliance with Senate Bill 743 (SB 743) via the Contra Costa Transportation Authority's (CCTA) recommended VMT analysis methodology. The CCTA VMT analysis methodology provides different screening criteria and significance thresholds based on the project land use type. CCTA considers residential projects to have a significant impact on VMT if the project generated home-based VMT per resident is higher than the less stringent of the following:

- 85% of the home-based VMT per resident in the municipality or
- 85% of the existing County-wide average home-based VMT per resident.

TJKM conducted a VMT (Vehicle Miles Traveled) analysis for the proposed housing project located at the intersection of E. Laurel Road and Sellers Road Lane in Oakley, CA. The project proposes build 85 single family units in a residential subdivision.

The VMT Analysis was performed for this project in the Contra Costa Transportation Authority (CCTA) Model. The Travel Analysis Zone (TAZ) for this project in the model is #30267. The 85 single family dwelling units were added into the TAZ for the base year to see if the project creates significant VMT impacts.

As this project is not screened out from VMT analysis, two full model runs were performed for this project in accordance to CCTA VMT methodology. The first one is a base year 2020 run to analyze existing VMT per capita numbers for the City of Oakley. The second run is a base year plus project 2020 run with the housing units added in to see if its impact on VMT is significant.

From the 2020 Base Year run, the home based VMT per capita for the City of Oakley is **26.76**. For a project to not be significant, the 85% threshold is set at 0.85 x 26.76 which is **22.75**. This value is the less stringent home-based VMT per capita number as mentioned in the CCTA VMT methodology guidelines.

The 2020 Base Year plus Project model run added 85 Single Family Dwelling Units into TAZ #30267. The resultant home based VMT per capita for the project TAZ is **23.39**. Since this value is higher than the threshold, some mitigation is required for this project to have an insignificant impact on VMT.

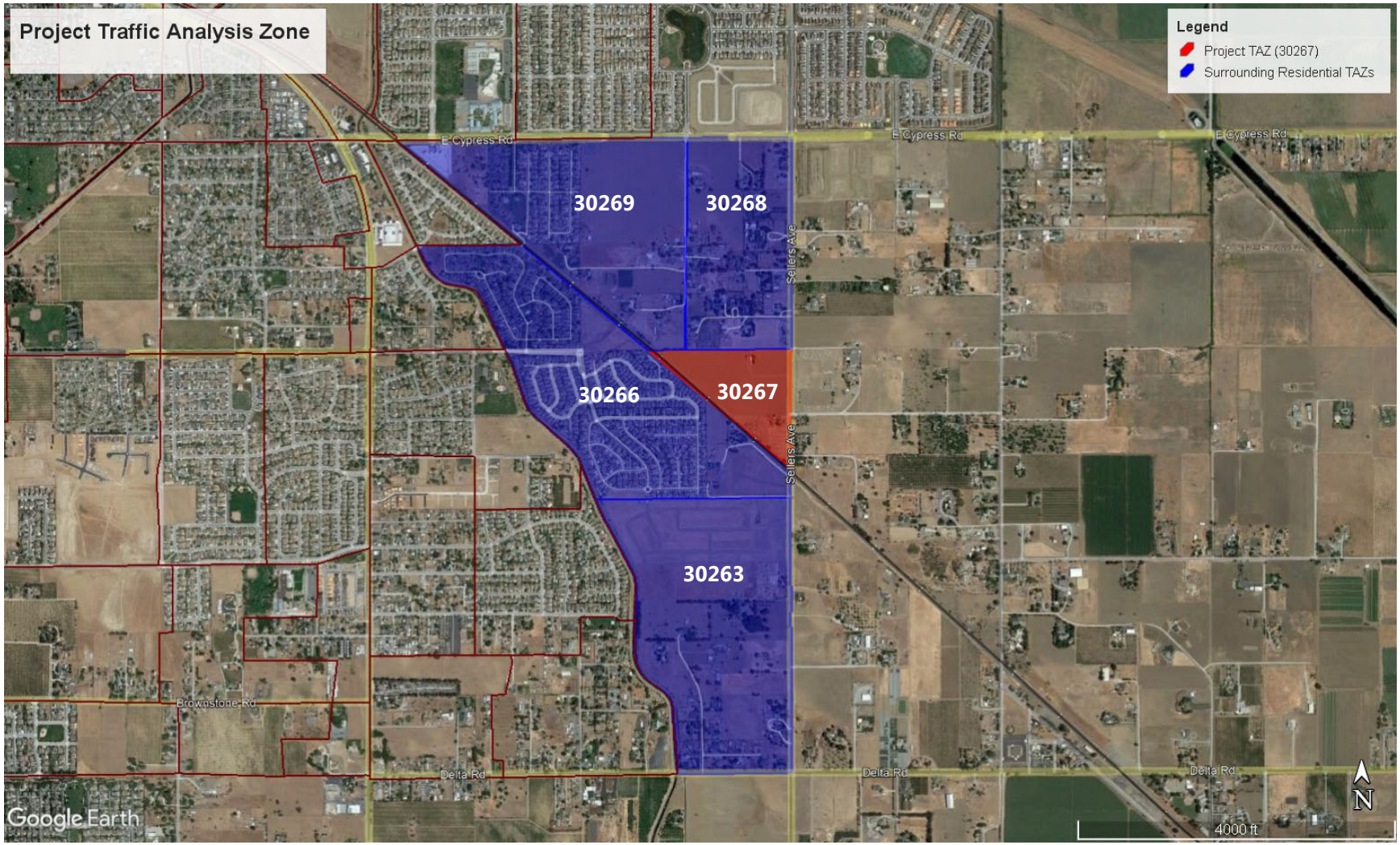
A mitigation measure that this project may attempt is:

1. Improve the pedestrian network – this strategy focuses on creating a pedestrian network within the project and connecting to nearby destinations. Sidewalk improvements count as part of this strategy and the maximum VMT reduction allowed is **5.7%.**

A 5.7% reduction in VMT for the project reduces the value from 23.39 to **22.06.** With mitigation, the Sellers Ave residential project is found to have a ***less than significant*** impact on VMT for the base year.

**Figure 6** illustrates the traffic analysis zones surrounding the proposed project.

**Figure 6: Traffic Analysis Zones in Project Study Area**



## 4.2 Project Trip Generation

The project vehicle trip generation rates were obtained from the reference *Trip Generation, 11h Edition (2021)*, published by the Institute of Transportation Engineers (ITE). Based on the applicable rates for Single-Family Detached Housing (ITE Code 210), the Project is forecasted to generate 802 daily vehicle trips, including 60 (16 inbound, 44 outbound) a.m. peak hour and 80 (50 inbound, 30 outbound) p.m. peak hour vehicle trips. **Table 4** summarizes the trip generation calculation for the proposed single-family home development.

**Table 4: Project Vehicle Trip Generation**

| | Land Use (ITE Code) | Size[1] | | Daily | | A.M. Peak[2] | | | | | P.M. Peak[2] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Rate | Trips | Rate | In:Out | In | Out | Total | Rate | In:Out | In | Out | Total |
| Proposed | Single-Family Detached Housing (210) | 85 | DU | 9.43 | 802 | 0.70 | 26:74 | 16 | 44 | 60 | 0.94 | 63:37 | 50 | 30 | 80 |
| **Net New Trips** | | | | | **802** | | | **16** | **44** | **60** | | | **50** | **30** | **80** |

Notes:

Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, 2021.

[1]DU – Dwelling Units

[2]A.M. Peak – morning peak period (7:00 a.m.-9:00 a.m.); P.M. Peak – evening peak period (4:00p.m.-6:00 p.m.)

## 4.3 Project Trip Distribution and Assignment

The peak-hour vehicle trips generated by the project were manually assigned to each study intersection based on two origin and destination trip-distribution assumptions for Existing and Background scenarios. The trip distribution assumptions under Existing plus Project Conditions follow:

- 19 percent to/from Main Street North
- 63 percent to/from Laurel Road west of Main Street
- 15 percent to/from Main Street South
- 2 percent to/from Sellers Road South
- 1 percent to/from E. Cypress Road East

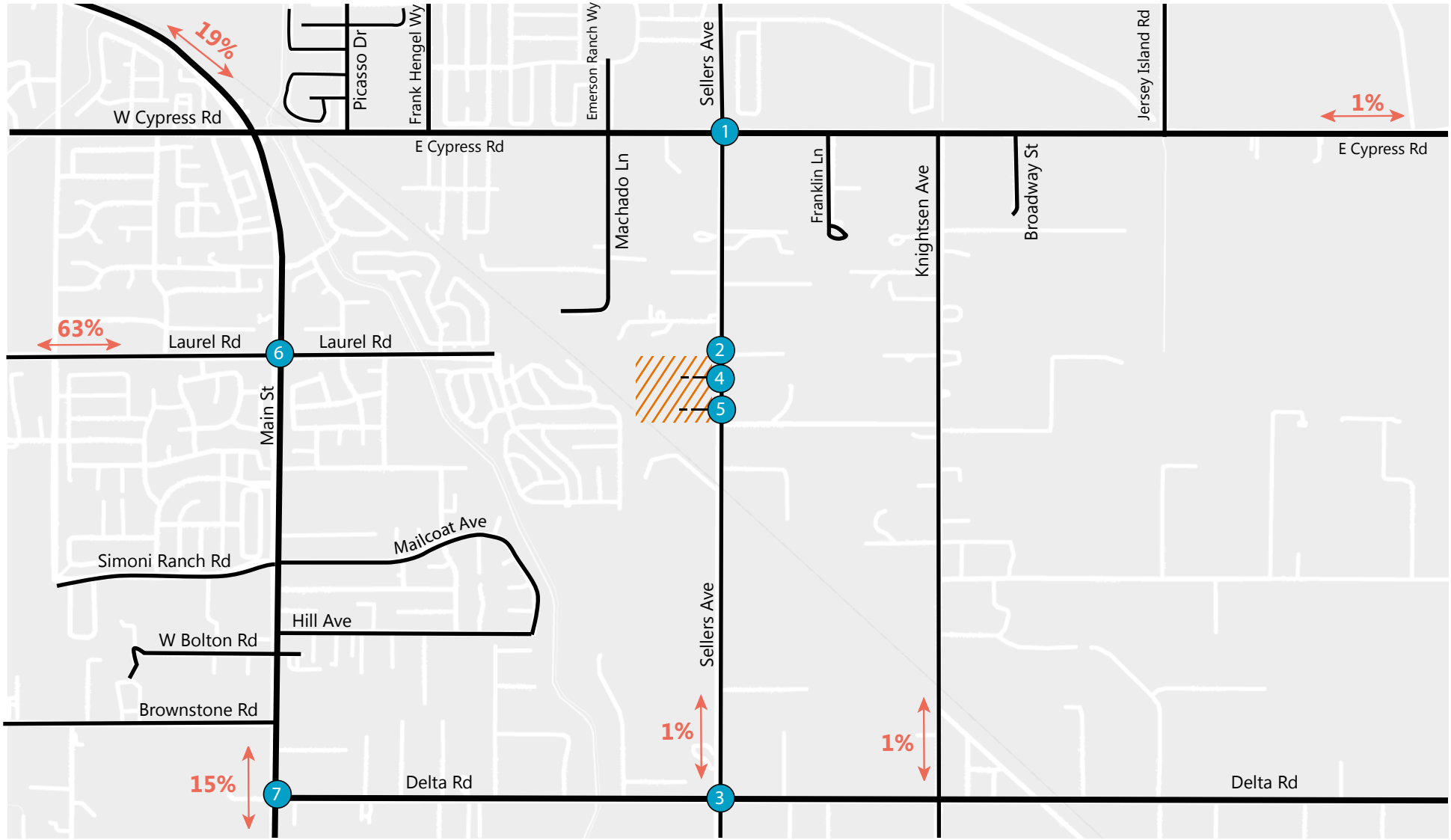
**Figures 7a and 7b** illustrate the distribution of project trips to origins/destinations, and the assignment of project trips to study intersections based on the anticipated path(s) of travel under Existing plus Project Conditions.

The trip distribution assumptions under Background plus Project Conditions follow:

- 19 percent to/from Main Street North
- 53 percent to/from Laurel Road west of Main Street
- 15 percent to/from Main Street South
- 2 percent to/from Sellers Road South
- 1 percent to/from E. Cypress Road East

**Figures 8a and 8b** illustrate the distribution of project trips to origins/destinations, and the assignment of project trips to study intersections based on the anticipated path(s) of travel under Bakcground plus Project Conditions.

## *Figure 7a: Existing Conditions Trip Distribution*




**LEGEND**

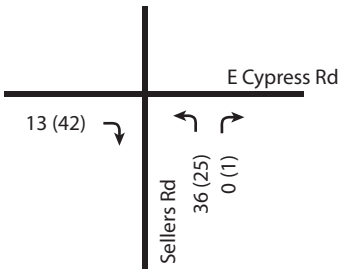
(x) Study Intersection — — — Project Entrance ▨ Project Site ↔ XX% Trip Distribution

N

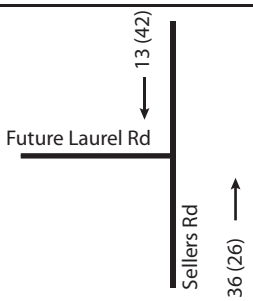
TJKM

## *Figure 7b: Existing Conditions Trip Distribution & Assignment*

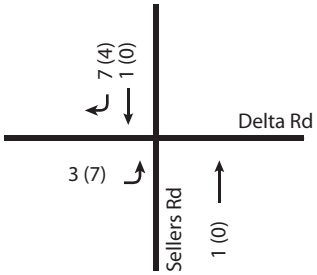
**Intersection #1**
**Sellers Rd / E Cypress Rd**



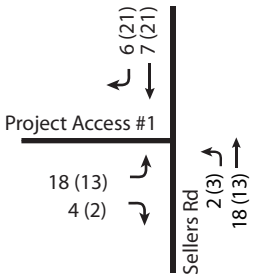

**Intersection #2**
**Sellers Rd / Laurel Rd**



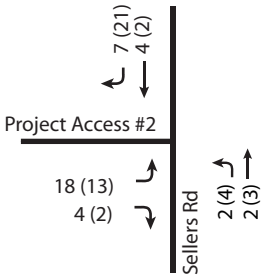

**Intersection #3**
**Sellers Rd / Delta Rd**



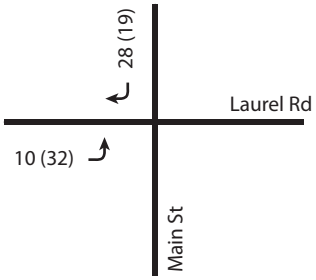

**Intersection #4**
**Sellers Rd / Project Access #1**



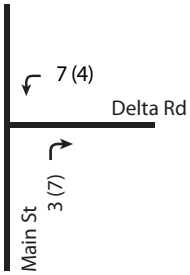

**Intersection #5**
**Sellers Rd / Project Access #2**




**Intersection #6**
**Main St / Laurel Rd**




**Intersection #7**
**Main St / Delta Rd**

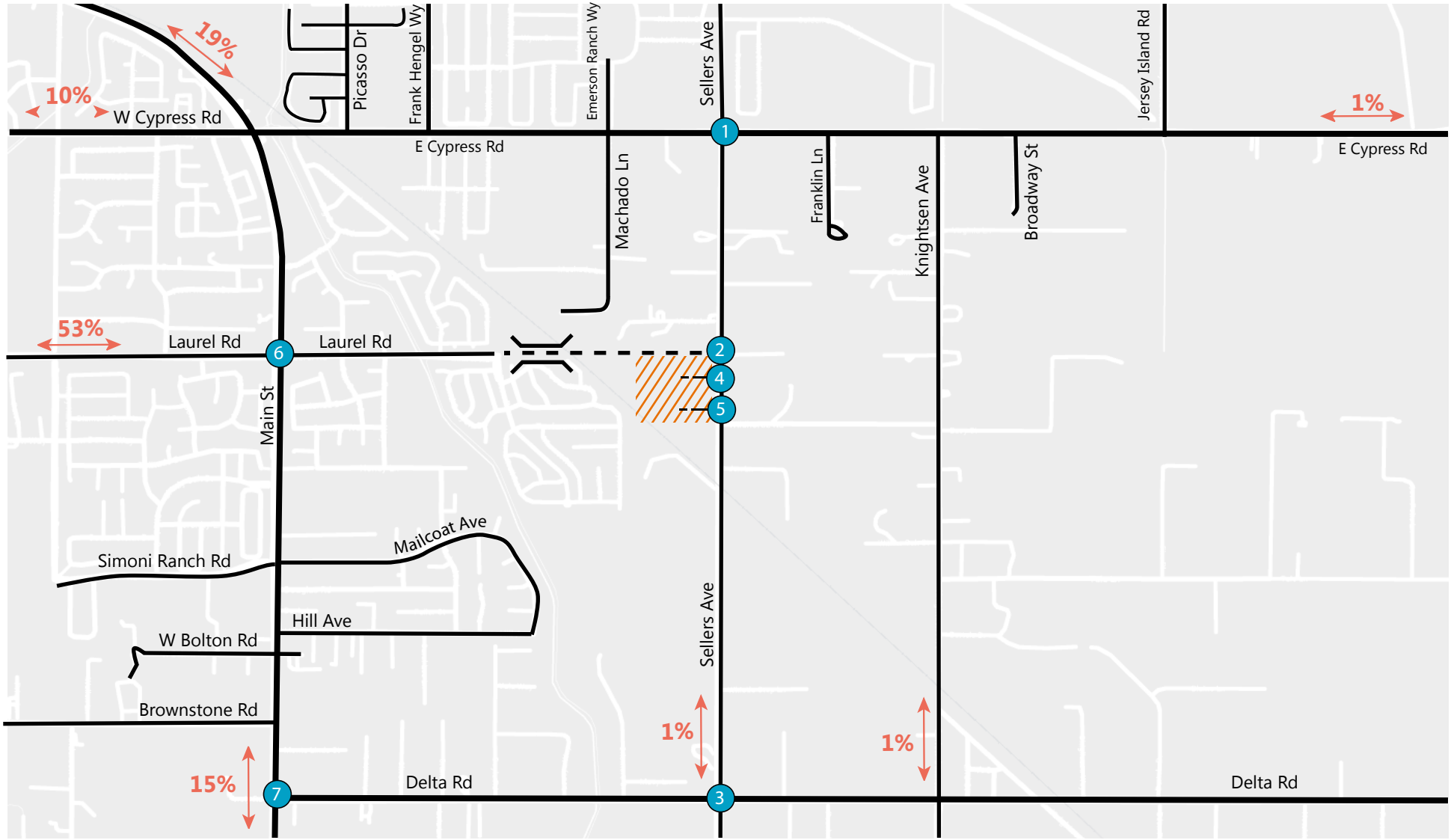



## LEGEND

XX AM Peak Hour Project Volume

(XX) PM Peak Hour Project Volume

## *Figure 8a: Background Conditions Trip Distribution*




**LEGEND**

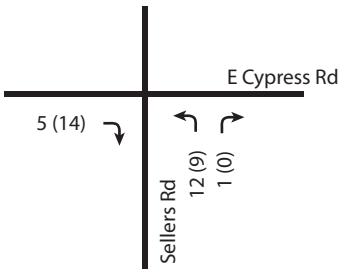
(X) Study Intersection — Project Entrance — Project Site — XX% Trip Distribution

N

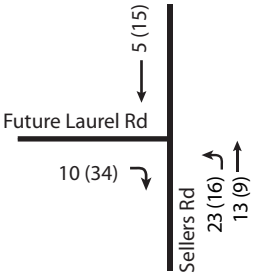
TJKM

## *Figure 8b: Background Conditions Trip Distribution & Assignment*

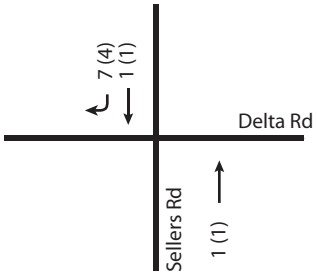
**Intersection #1**
**Sellers Rd / E Cypress Rd**



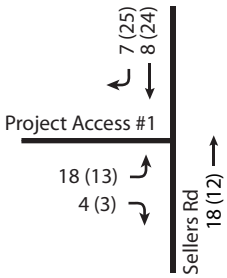

**Intersection #2**
**Sellers Rd / Laurel Rd**



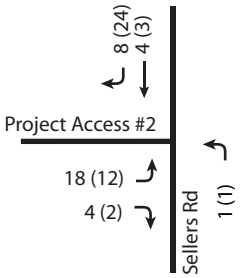

**Intersection #3**
**Sellers Rd / Delta Rd**



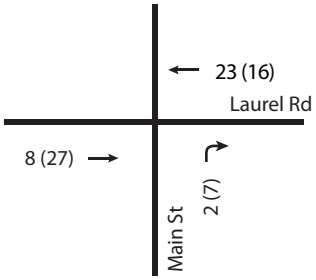

**Intersection #4**
**Sellers Rd / Project Access #1**



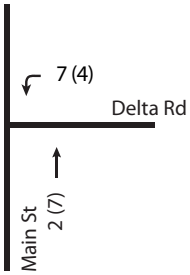

**Intersection #5**
**Sellers Rd / Project Access #2**

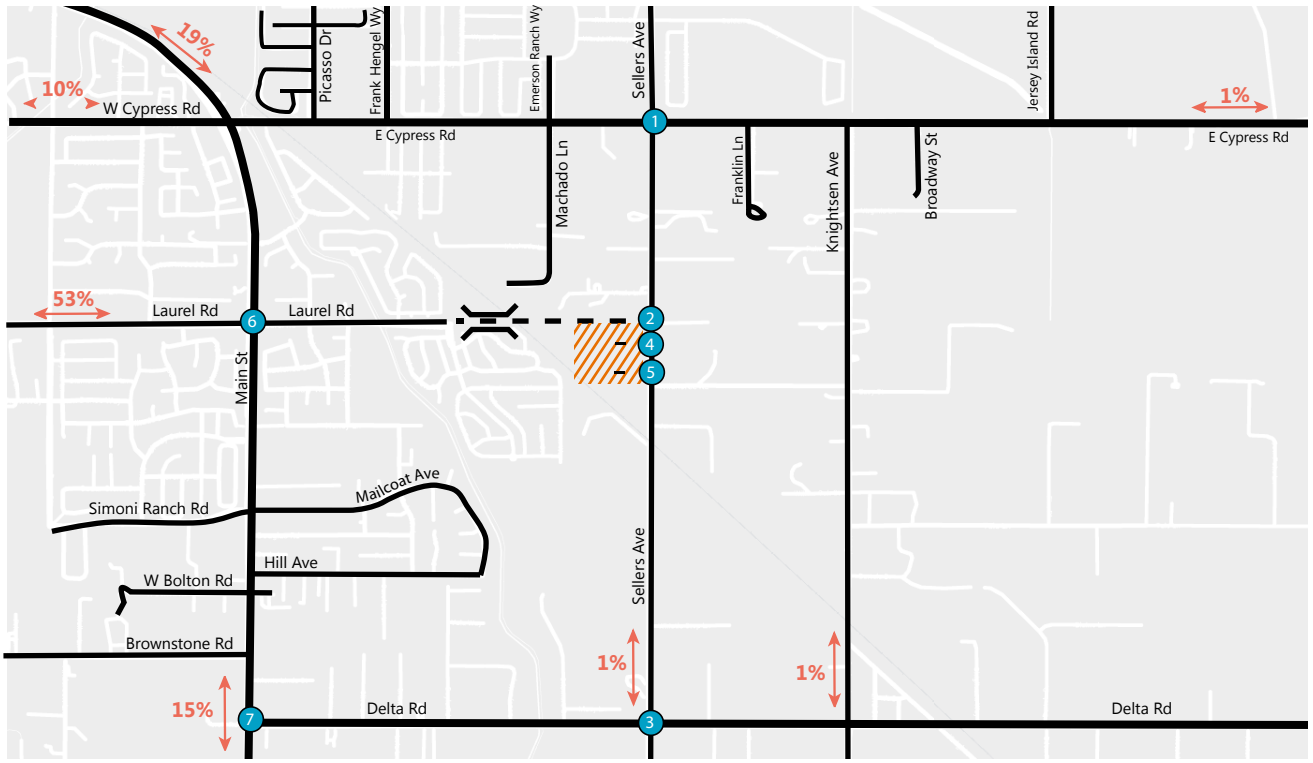



**Intersection #6**
**Main St / Laurel Rd**




**Intersection #7**
**Main St / Delta Rd**




## LEGEND

XX AM Peak Hour Project Volume

(XX) PM Peak Hour Project Volume

TJKM

## 4.4 Intersection Level of Service Analysis – Existing plus Project Conditions

**Figure 9** shows the peak hour volumes at each intersection under Existing plus Project Conditions. **Table 5** summarizes peak hour levels of service at the study intersections under Existing plus Project Conditions, based on the addition of project trips to each study intersection. Detailed LOS worksheets for this scenario are provided in **Appendix B**. As shown, all study intersections will continue to operate at acceptable LOS under Existing plus Project conditions, except the intersection at Main Street/Delta Road (Intersection #7), which operates at LOS F during the a.m. peak.

**Table 5: Intersection Level of Service Analysis – Existing plus Project Conditions**

| ID | Intersection | Control[2] | Peak Hour[3] | Existing Conditions | | Existing plus Project Conditions | | Substantial Impact? (Y/N) |
|---|---|---|---|---|---|---|---|---|
| | | | | Average Delay[4] | LOS[5] | Average Delay[4] | LOS[5] | |
| 1 | Sellers Road / E. Cypress Road* | Signalized | A.M. | 18.4 | B | 19.8 | B | N |
| | | | P.M. | 17.2 | B | 18.5 | B | N |
| 2 | Sellers Road / Laurel Road*** | Signalized | A.M. | - | - | | | N |
| | | | P.M. | - | - | | | N |
| 3 | Sellers Road / Delta Road | AWSC | A.M. | 9.4 | A | 9.5 | A | N |
| | | | P.M. | 13.0 | B | 13.2 | B | N |
| 4 | Sellers Road / Project Access 1** | One-Way Stop | A.M. | - | - | 11.3 | B | N |
| | | | P.M. | - | - | 10.9 | B | N |
| 5 | Seller Road / Project Access 2** | One-Way Stop | A.M. | - | - | 11.2 | B | N |
| | | | P.M. | - | - | 10.7 | B | N |
| 6 | Main Street / Laurel Road*[1] | Signalized | A.M. | 40.7 | D | 40.5 | D | N |
| | | | P.M. | 32.8 | C | 32.1 | C | N |
| 7 | Main Street / Delta Road*[1] | TWSC | A.M. | **70.2** | **F** | **113.5** | **F** | **Y** |
| | | | P.M. | 40.5 | E | 44.5 | E | N |

Notes: **Bold** text indicates unacceptable intersection operations.

*Indicates Routes of Regional Significance (East County Action Plan, CCTA, 2019).

**Analyzed under plus Project Scenarios, only.

***Analyzed under Background Scenarios, only.

[1]Indicates intersection is located in Priority Development Area and has standard of LOS E (Plan Bay Area 2050).

[2]AWSC – All-way stop control; TWSC – Two-way stop control.

[3]A.M. – Morning peak hour; P.M. – Evening peak hour.

[4]Delay: Average control delay in seconds per vehicle, reported values are overall for signalized and all-way-stop-control intersections; and critical minor approaches for one- and two-way stop-control intersections.

[5]LOS: Level of Service.

### Traffic Impact Findings

The project impact to the intersection at Main Street/E. Cypress Delta Road (Intersection #7) is potentially substantial because the project adds five or more seconds of delay in the a.m. peak period.

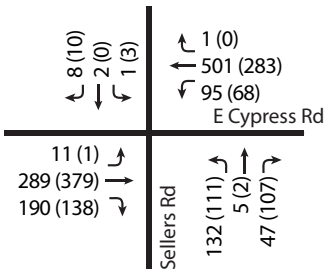
The stop-controlled intersection of Main Street/Delta Road (Study Intersection #7) operates at unacceptable LOS F during the a.m. peak hour under Existing Conditions without and with the proposed project. During the a.m. peak hour, the addition of project traffic increases delay by over five seconds, and thus a potential substantial impact, due to lack of acceptable gaps to the westbound left-turn movement, is observed. TJKM performed a peak hour signal warrant analysis, based on the California Manual on Uniform Traffic Control Devices (CA MUTCD) standards, at the intersection for existing peak hour traffic

volumes. A signal is warranted in the a.m. and p.m. peak hour, based on the peak hour signal warrant (Warrant #3). Installing a signal control at this intersection improves intersection operations to LOS C or better during both a.m. and p.m. peak hours.

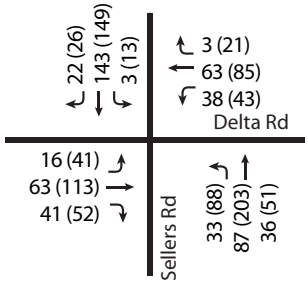
**Appendix C** contains detailed LOS worksheets for mitigations under Existing plus Project Conditions and the peak hour signal warrant worksheets.

## *Figure 9: Existing plus Project Conditions Peak Hour Traffic Volumes*

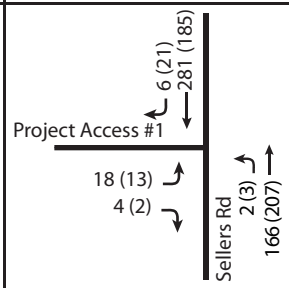
**Intersection #1**
**Sellers Rd / E Cypress Rd**



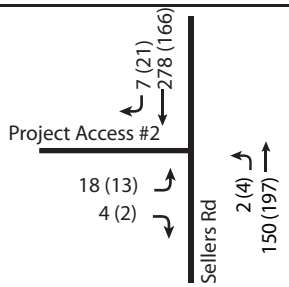

**Intersection #3**
**Sellers Rd / Delta Rd**



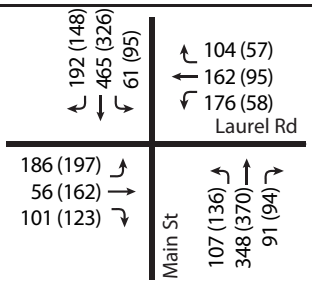

**Intersection #4**
**Sellers Rd / Project Access #1**



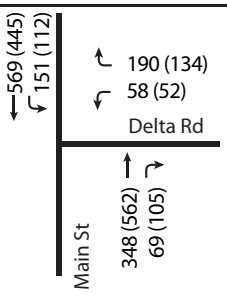

**Intersection #5**
**Sellers Rd / Project Access #2**

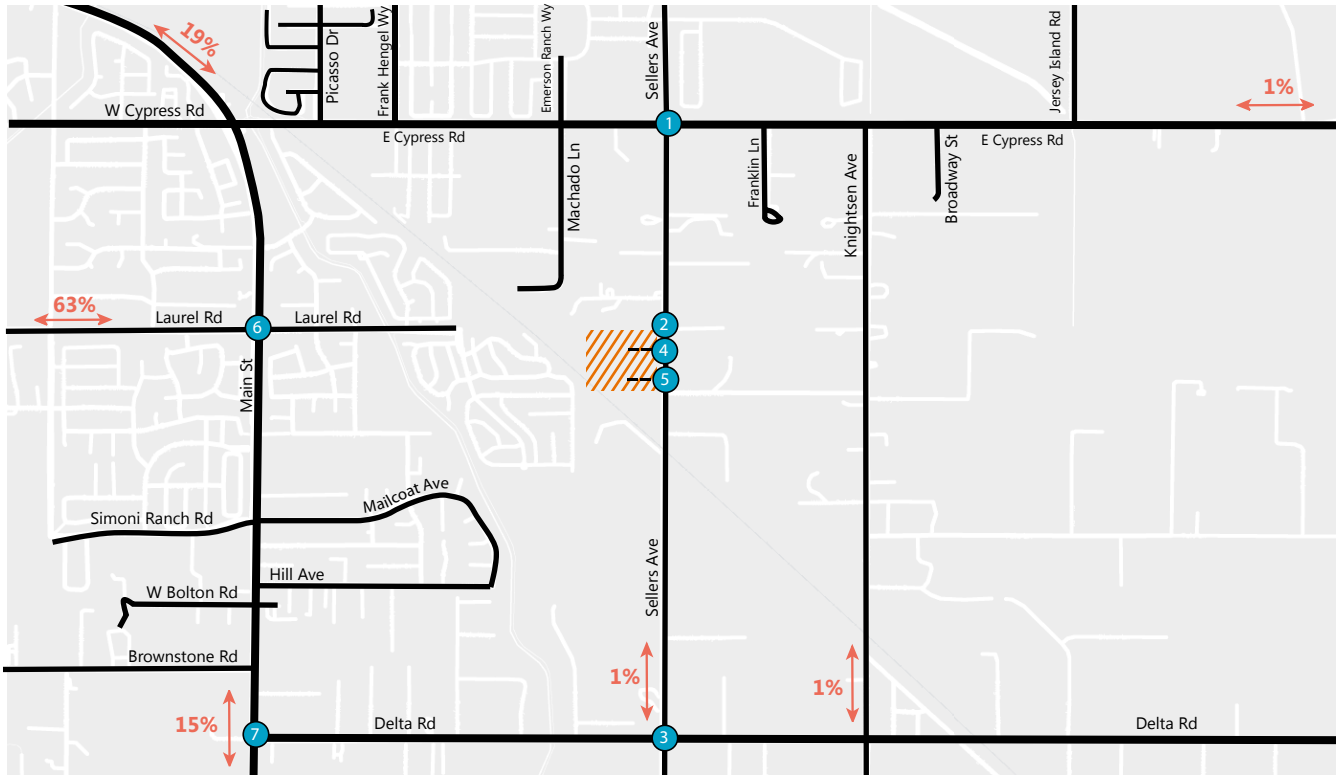



**Intersection #6**
**Main St / Laurel Rd**




**Intersection #7**
**Main St / Delta Rd**




## LEGEND

XX AM Peak Hour Volume

(XX) PM Peak Hour Volume

TJKM

# 5.0 BACKGROUND CONDITIONS

This scenario evaluates the project's contribution to potential background traffic impacts. Future impacts were evaluated taking into account key planned improvements in the City of Oakley. The most notable project is the completion of the Laurel Road extension between Main Street and Sellers Avenue. This includes a railroad grade separation and widening/construction of Laurel Road to four lanes in this section. In addition, Sellers Avenue is planned to be widened to four lanes between Laurel Road and E. Cypress Road. Cypress Road is planned to be fully improved to six lanes east of Sellers Avenue and to four lanes west of Sellers Avenue. Other roads and intersections are scheduled to be improved as well. **Figure 10** shows the redistribution of existing traffic as depicted in the Updated Oakley Traffic Model with the Laurel Road extension.

## 5.1 Background Traffic Growth

Using the calibrated and validated updated Citywide Traffic Model, additional traffic projected to be generated from approved developments was forecasted for Background Conditions. The Background Conditions scenario includes additional traffic that would be generated by various approved projects completed within the City of Oakley and redistribution of traffic due to the Laurel Road extension. The approved projects include the Acacia Residential, Emerson Ranch Commercial, and Burroughs/WestGate Ventures Residential projects previously completed by TJKM.

Additionally, he following planned improvements, as per the Capital Improvement Program, are considered at the study intersections with and without the proposed project:

- Sellers Avenue/E. Cypress Road is analyzed with the recent upgrade to lane geometry and signal timing. Additionally, the intersection considers planned widenings of Sellers Avenue and E. Cypress Road segments. The intersection is analyzed with one shared through-left lane and two right-turn lanes at the southbound approach; one exclusive left-turn lane, one shared through-right lane and two right-turn lanes at the northbound approach; one left-turn lane, two through lanes and one shared through-right lane at the eastbound approach; and two exclusive left-turn lanes, one through lane and one shared through-right lane at the westbound approach.
- Main Street/Laurel Road is analyzed with future planned upgrade to striping at the northbound, eastbound and westbound approaches under Background Conditions. The intersection is analyzed with one exclusive left-turn lane, two through lanes and one exclusive right-turn lane at the northbound approach; one exclusive left-turn lane, two through lanes and one exclusive right-turn lane at the eastbound approach; and one exclusive left-turn lane, three through lanes and one exclusive right-turn lane at the westbound approach.
- Main Street/Delta Road is analyzed as a signalized intersection with updated lane geometry under Background Conditions. The intersection is analyzed with exclusive left-turn and right-turn lanes at the westbound approach, one through lane and one shared through-right lane at the northbound approach, and one exclusive left-turn lane and two through lanes at the southbound approach.
- Sellers Avenue/Laurel Road is a new intersection analyzed under Background Conditions. This intersection is formed due to the extension of Laurel Road. The intersection is analyzed as a

signalized intersection with two left-turn lanes and one right-turn lane at the eastbound approach, one exclusive left-turn lane and two through lanes at the northbound approach, and one through lane and two right-turn lanes at the southbound approach.

## 5.2 Intersections Level of Service Analysis – Background No-Project Conditions

**Figure 11** shows the forecasted volumes at each intersection under Background Conditions, based on the update of the Oakley Citywide Traffic Model. **Table 6** summarizes peak hour levels of service at the study intersections under Background Conditions without the proposed Project. Detailed LOS worksheets for this scenario are provided in **Appendix D**. Under Background Conditions, all study intersections operate within acceptable jurisdictional standards of LOS D/E or better during the both peak hours.

**Table 6: Intersection Level of Service – Background Conditions**

| ID | Intersection | Control[2] | Peak Hour[3] | Background Conditions | |
|---|---|---|---|---|---|
| | | | | Average Delay[4] | LOS[5] |
| 1 | Sellers Road / E. Cypress Road* | Signalized | A.M. | 43.8 | D |
| | | | P.M. | 36.7 | D |
| 2 | Sellers Road / Laurel Road*** | Signalized | A.M. | 48.7 | D |
| | | | P.M. | 50.5 | D |
| 3 | Sellers Road / Delta Road | AWSC | A.M. | 10.2 | B |
| | | | P.M. | 19.1 | C |
| 4 | Sellers Road / Project Access 1** | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 5 | Seller Road / Project Access 2** | One-Way Stop | A.M. | - | - |
| | | | P.M. | - | - |
| 6 | Main Street / Laurel Road*[1] | Signalized | A.M. | 52.6 | D |
| | | | P.M. | 52.0 | D |
| 7 | Main Street / Delta Road*[1] | Signalized | A.M. | 11.9 | B |
| | | | P.M. | 7.9 | A |

Notes: **Bold** text indicates unacceptable intersection operations.

*Indicates Routes of Regional Significance (East County Action Plan, CCTA, 2019).

**Analyzed under plus Project Scenarios, only.

***Analyzed under Background Scenarios, only.

[1]Indicates intersection is located in Priority Development Area and has standard of LOS E (Plan Bay Area 2050).

[2]AWSC – All-way stop control; TWSC – Two-way stop control.

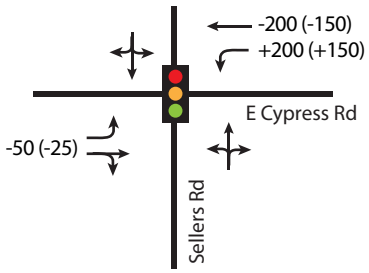
[3]A.M. – Morning peak hour; P.M. – Evening peak hour.

[4]Delay: Average control delay in seconds per vehicle, reported values are overall for signalized and all-way-stop-control intersections; and critical minor approaches for one- and two-way stop-control intersections.

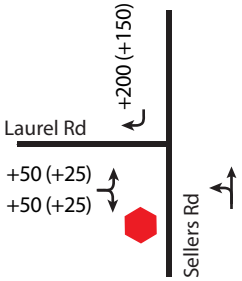
[5]LOS: Level of Service.

## *Figure 10: Redistribution of Existing Trips for Background Conditions*

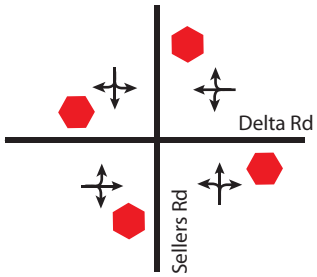
**Intersection #1**
**Sellers Rd / E Cypress Rd**



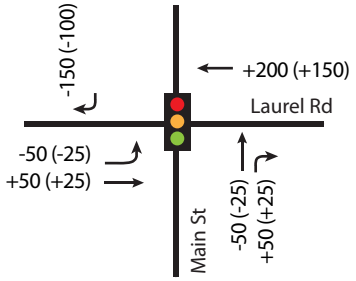

**Intersection #2**
**Sellers Rd / Laurel Rd**



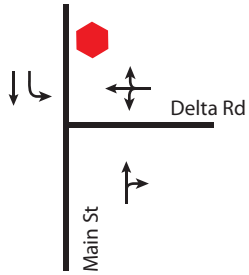

**Intersection #3**
**Sellers Rd / Delta Rd**




**Intersection #6**
**Main St / Laurel Rd**




**Intersection #7**
**Main St / Delta Rd**

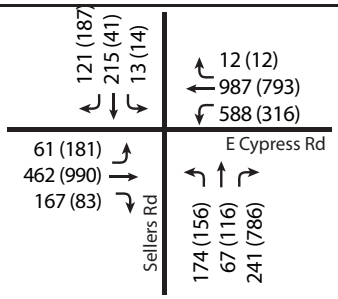



**LEGEND**

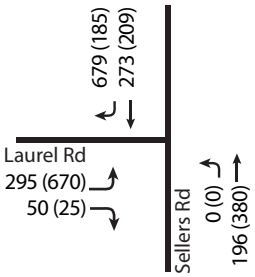
Traffic Signal  Stop Sign

## *Figure 11: Background Conditions Peak Hour Traffic Volumes*

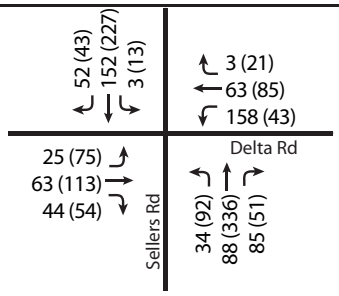
**Intersection #1**
**Sellers Rd / E Cypress Rd**



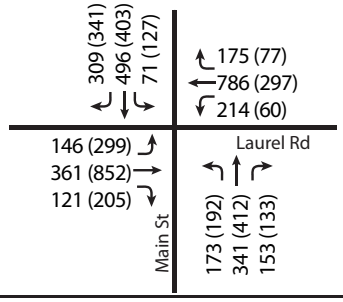

**Intersection #2**
**Sellers Rd / Laurel Rd**



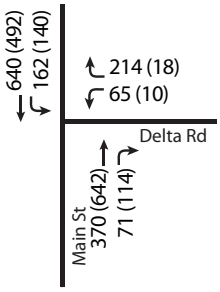

**Intersection #3**
**Sellers Rd/ Delta Rd**




**Intersection #6**
**Main St / Laurel Rd**




**Intersection #7**
**Main St / Delta Rd**




**LEGEND**

XX AM Peak Hour Traffic Volume

(XX) PM Peak Hour Traffic Volume

# 6.0 BACKGROUND PLUS PROJECT CONDITIONS

This scenario is identical to Background No-Project Conditions, but with the addition of projected traffic from the proposed project. Trip generation, distribution, and assignment for the proposed project are adjusted to account for traffic redistribution with the Laurel Road extension. **Figures 8a and 8b** show the trip distribution and assignment under Background plus Project Conditions.

## 6.1 Intersection Level of Service Analysis – Background plus Project Conditions

**Figure 12** shows the forecasted volumes at each intersection under Background plus Project Conditions, based on the updated Oakley Citywide Traffic Model and the proposed project traffic. **Table 7** summarizes peak hour levels of service at the study intersections under Background plus Project Conditions, with Background Conditions results included for comparison purposes. Detailed LOS worksheets for Background plus Project Conditions are provided in **Appendix E**. As shown, all study intersections will continue to operate at acceptable LOS under Background plus Project conditions.

**Table 7: Intersection Traffic Level of Service – Background plus Project Conditions**

| ID | Intersection | Control[2] | Peak Hour[3] | Background Conditions | | Background plus Project Conditions | | Substantial Impact? (Y/N) |
|---|---|---|---|---|---|---|---|---|
| | | | | Average Delay[4] | LOS[5] | Average Delay[4] | LOS[5] | |
| 1 | Sellers Road / E. Cypress Road* | Signalized | A.M. | 43.8 | D | 45.7 | D | N |
| | | | P.M. | 36.7 | D | 37.0 | D | N |
| 2 | Sellers Road / Laurel Road*** | Signalized | A.M. | 48.7 | D | 49.2 | D | N |
| | | | P.M. | 50.5 | D | 50.7 | D | N |
| 3 | Sellers Road / Delta Road | AWSC | A.M. | 10.2 | B | 10.3 | B | N |
| | | | P.M. | 19.1 | C | 19.3 | C | N |
| 4 | Sellers Road / Project Access 1** | One-Way Stop | A.M. | - | - | 11.0 | B | N |
| | | | P.M. | - | - | 11.3 | B | N |
| 5 | Seller Road / Project Access 2** | One-Way Stop | A.M. | - | - | 10.9 | B | N |
| | | | P.M. | - | - | 11.2 | B | N |
| 6 | Main Street / Laurel Road*[1] | Signalized | A.M. | 52.6 | D | 53.0 | D | N |
| | | | P.M. | 52.0 | D | 52.0 | D | N |
| 7 | Main Street / Delta Road*[1] | Signalized | A.M. | 11.9 | B | 12.0 | B | N |
| | | | P.M. | 7.9 | A | 8.0 | A | N |

Notes: **Bold** text indicates unacceptable intersection operations.

*Indicates Routes of Regional Significance (East County Action Plan, CCTA, 2019).

**Analyzed under plus Project Scenarios, only.

***Analyzed under Background Scenarios, only.

[1]Indicates intersection is located in Priority Development Area and has standard of LOS E (Plan Bay Area 2050).

[2]AWSC – All-way stop control; TWSC – Two-way stop control.

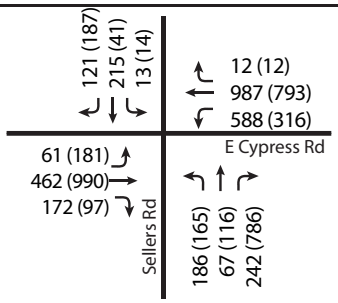
[3]A.M. – Morning peak hour; P.M. – Evening peak hour.

[4]Delay: Average control delay in seconds per vehicle, reported values are overall for signalized and all-way-stop-control intersections; and critical minor approaches for one- and two-way stop-control intersections.

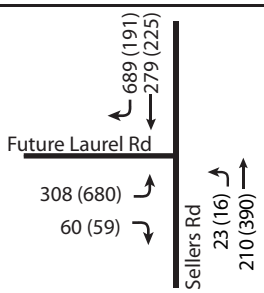
[5]LOS: Level of Service.

## *Figure 12: Background plus Project Conditions Peak Hour Traffic Volumes*

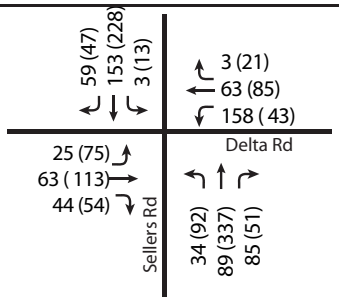
**Intersection #1**
**Sellers Rd / E Cypress Rd**



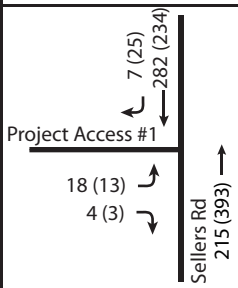

**Intersection #2**
**Sellers Rd / Laurel Rd**



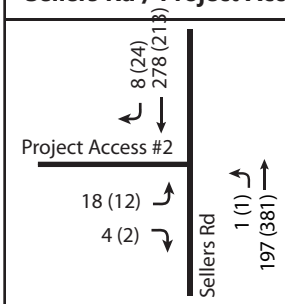

**Intersection #3**
**Sellers Rd / Delta Rd**



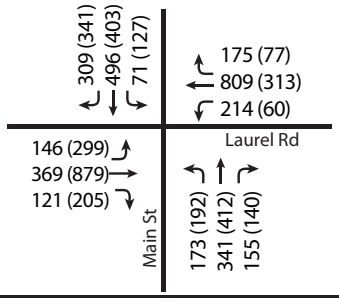

**Intersection #4**
**Sellers Rd / Project Access #1**



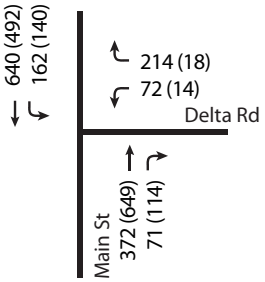

**Intersection #5**
**Sellers Rd / Project Access #2**

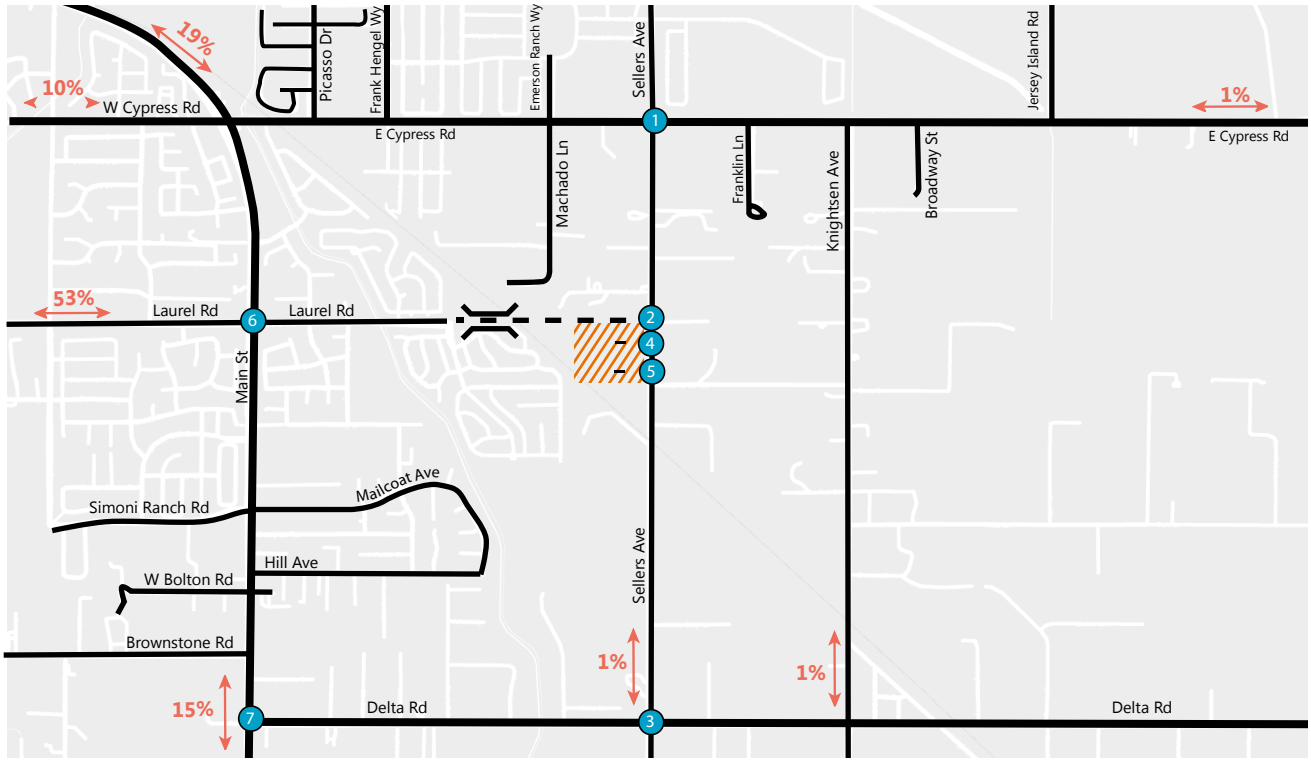



**Intersection #6**
**Main St / Laurel Rd**




**Intersection #7**
**Main St / Delta Rd**




## LEGEND

XX AM Peak Hour Volume

(XX) PM Peak Hour Volume

# 7.0 ADDITIONAL ANALYSIS

The following sections provide additional analyses of other transportation issues associated with the project site, including:

- Site access, circulation, and multimodal impacts
- Sight Distance Analysis
- Parking Analysis
- Queueing Analysis

The analyses in these sections are based on professional judgment in accordance with the standards and methods employed by traffic engineers. Although operational issues are not considered CEQA impacts, they do describe traffic conditions that are relevant to describing the project environment.

## 7.1 Site Access, Circulation, and Multimodal Impacts

**Site Access and On-Site Circulation**

The proposed project is located in the southwest quadrant of the future intersection of Sellers Road and Laurel Road (Intersection #2). The project proposes internal roadways, accessible from Sellers Road, which provide access to the single family homes, as shown in **Figure 2**. The roadway widths, including sidewalks on both sides, will range between 40 and 48 feet wide. The project proposes to provide sidewalks with landscaping on both sides of the internal roadways and on the west side of Sellers Road. Additionally, the project driveway will provide curb ramps at both driveways and at the southwest corner of the Sellers Road and Future Laurel Road intersection. The project driveways on Sellers Road will both be one-way stop controlled with vehicles entering and exiting the site anticipated to be travelling at 25 to 30 miles per hour (mph). Emergency vehicles will access the project site via the two proposed intersections on Sellers Road.

The site circulation works well for vehicular traffic with multiple routes providing access to the single-family homes. The internal roadways, which will provide access to the single-family residences, accommodates two-way travel. The proposed roadway also accommodates emergency and garbage truck circulation. Based on the current site plan, it is not clear if the internal roadways accommodate on-street parking. TJKM recommends the project accommodate on-street parking on both sides of the internal roadways.

**Pedestrian Facilities Impacts**

Pedestrian access would be provided via proposed sidewalks along the project frontage on the west side of Sellers Road and both sides of the future Laurel Road, and within the project site. All internal streets would have sidewalks to provide accessible paths of travel to each home. TJKM recommends the sidewalk widths are at least six feet wide, and curb ramps are provided at all internal crossings to provide adequate pedestrian facilities.

A significant impact occurs if the proposed project conflicts with applicable or adopted policies, plans or programs related to pedestrians facilities or otherwise decreases the performance or safety of pedestrian

facilities. The proposed project will not result in any significant impacts to the nearby and future proposed pedestrian facilities.

**Bicycle Facilities Impacts**

Bicycle access to the project site would be provided by the nearest bicycle facilities, which are existing Class II bike lane facilities along both sides of E. Cypress Road and both sides of Laurel Road, west of Main Street. The project does not propose to provide new bicycle facilities. The Contra Costa County Transportation Authority Countywide Bicycle and Pedestrian Plan proposes Class II bike lanes Sellers Road, south of E. Cypress Road, which is along the project frontage.

An impact to bicyclists occurs if the proposed project disrupt existing bicycle facilities; or conflict or create inconsistencies with adopted bicycle system plans, guidelines, and policies. A significant impact occurs if the proposed project conflicts with applicable or adopted policies, plans or programs related to bicycle facilities or otherwise decrease the performance or safety of bicycle facilities. The proposed project will not result in any significant impacts to the nearby and future proposed bicycle facilities.

**Transit Facilities Impacts**

A proposed project is considered to have a significant impact on transit if it conflicts with existing or planned transit facilities, or is expected to generate additional transit trips and does not provide adequate facilities for pedestrians and bicyclists to access transit routes and stops.

The nearest transit facility is currently located at the intersection of Main Street and E. Cypress Road, and in the future, at the intersection of Main Street and Laurel Road, which will be accessible with the future planned extension of Laurel Road. The bus stops are not accessible via sidewalks and bike facilities, however, future planned facilities, and the extension of Laurel Road, will make the bus stops more accessible to and from the project site. The proposed project will likely not add a significant amount of volume to existing bus service capacity. Therefore, the proposed project is not expected to result in any significant impacts to the nearby transit network.

## 7.2 Sight Distance Analysis

Sellers Road is currently a two-lane bidirectional roadway and has a posted speed limit of 50 mph near the project site. The proposed project will pave new roadways within the project site, and provide two access points on the west side of Sellers Avenue. As per the proposed site plan **(Figure 2)**, oncoming traffic travelling northbound and southbound on Sellers Road have a clear line of sight to vehicles exiting the project site for at least 430 feet, north and south of both project entrances. No obstructions to sight distance are expected, however, TJKM recommends that on-street parking is prohibited on Sellers Road, along the project frontage.

## 7.3 Parking Analysis

Under the City of Oakley zoning regulations, the proposed project is classified as a single family residential use. For single family dwelling units, the City of Oakley Municipal Parking Code (Chapter 9.1.1402) requires two covered off-street parking spaces per unit. In order to satisfy City of Oakley Code

requirements, TJKM recommends the project provide two covered parking spaces at each dwelling unit lot (170 total parking spaces). Assuming each residential unit provides a two-car garage, the proposed project meets the parking supply requirements for the City of Oakley. TJKM also recommends the project accommodates on-street parking along the proposed internal roadways to accommodate guest parking.

## 7.4 Queueing Analysis

TJKM conducted a vehicle queuing and storage analysis for all exclusive left-turn or right-turn pockets at the study intersections where project traffic is added under Existing and Existing plus Project scenarios. The 95th percentile (maximum) queues were analyzed using the HCM 6th Edition Queue methodology contained in Vistro software. Detailed calculations are included in the LOS appendices corresponding to each analysis scenario.

**Table 8** summarizes the 95th percentile queue lengths at the study intersections under Existing and Existing plus Project scenarios. Under Existing plus Project scenarios, the proposed project increases queue length by a maximum of 20 feet, or less than one vehicle (one vehicle length=25 feet), at the intersection of Main Street/Laurel Road (Intersection #6). The addition of project traffic causes queue lengths to increase by approximately one vehicle at the eastbound left-turn at the intersection of Main Street and Laurel Road, and by less than one vehicle at the westbound left-turn at the intersection of Sellers Road/E. Cypress Road.

The intersection of Main Street and Laurel Road is significantly overloaded by projected development in the City of Oakley. Alternate access to the south is needed so traffic can reach an upgraded Laurel Road and Main Street intersection without having to use Main Street. This is included in the general plan. Under Existing and Existing plus Project Conditions, the westbound left-turning traffic exceeds queueing capacity by a maximum 85 feet, or four car lengths during the a.m. peak. However, this overflow is not due to traffic generated by the proposed traffic, as the maximum queue length does not change with the addition of project traffic.

It is noted that the queuing issues described above may be resolved by Oakley's planned improvements highlighted in the CIP.

**Table 8: Queueing for Study Intersections, in Feet**

| # | Study Intersections | Lane Group | Storage Length | Existing | | Existing plus Project | | Change | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | AM | PM | AM | PM | AM | PM |
| 1 | Sellers Road / E. Cypress Road | EBL | 185 | 15 | 5 | 15 | 5 | 0 | 0 |
| | | WBL | 250 | 65 | 35 | 75 | 40 | 10 | 5 |
| 6 | Main Street / Laurel Road | NBL | 305 | 175 | 205 | 175 | 205 | 0 | 0 |
| | | SBL | 215 | 100 | 145 | 100 | 145 | 0 | 0 |
| | | EBL | 160 | 125 | 110 | 135 | 130 | 10 | 20 |
| | | WBL | 300 | **385** | 90 | **385** | 90 | 0 | 0 |

Notes:
Storage length and 95th percentile queue is expressed in feet per lane.
**Bold** indicates overflow.

**Table 9** summarizes the 95th percentile queue lengths at the study intersections under Background and Background plus Project scenarios. Under Background plus Project scenarios, the proposed project

increases queue length by a maximum of 45 feet, or less than two vehicles (one vehicle length=25 feet), at the intersection of Sellers Road/Laurel Road (Intersection #2). The addition of project traffic causes queue lengths to increase by a maximum of one vehicle at the northbound left-turn at the intersection of Sellers Road and E. Cypress Road, two vehicles at the eastbound right-turn of Sellers Road and Laurel Road, and by less than one vehicle at the southbound right-turn at the intersection of Main Street/Laurel Road.

The intersections of Sellers Road/E. Cypress Road, Sellers Road/Laurel Road, and Main Street/Laurel Road are significantly overloaded by projected development in the City of Oakley. Under Background and Background plus Project Conditions, several turning lanes exceed queueing capacity during both peak periods. However, this overflow is not due to traffic generated by the proposed traffic, as the project adds a maximum of 25 feet, or one vehicle length, to the overflowing turning lanes.

It should also be noted that the Sellers Road/Laurel Road (Intersection #2) intersection is a future planned intersection, and thus, turn pockets and signal timing is assumed for this project. With the Laurel Road extension, improvements must be made to Main Street/Laurel Road (Intersection #6), as more traffic will be distributed through that intersection. These needed improvements are not reflected in this study.

**Table 9: Queueing for Study Intersections, in Feet**

| # | Study Intersections | Lane Group | Storage Length | Background | | Background plus Project | | Change | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | AM | PM | AM | PM | AM | PM |
| 1 | Sellers Road / E. Cypress Road | NBL | 150 | **255** | 145 | **280** | **155** | 25 | 10 |
| | | SBTL | 110 | **365** | 80 | **380** | 80 | 15 | 0 |
| | | EBL | 185 | 105 | **205** | 105 | **210** | 0 | 5 |
| | | WBL | 250 | **410** | 175 | **430** | 175 | 20 | 0 |
| 2 | Sellers Road / Laurel Road* | NBL | 100 | 0 | 0 | 40 | 25 | 40 | 25 |
| | | SBR | 100 | **470** | **120** | **475** | **125** | 5 | 5 |
| | | EBR | 100 | 60 | 30 | 75 | 75 | 15 | 45 |
| 6 | Main Street / Laurel Road | NBL | 305 | **380** | **320** | **380** | **320** | 0 | 0 |
| | | SBL | 215 | 145 | **225** | 145 | **225** | 0 | 0 |
| | | SBR | 215 | **530** | **400** | **550** | **410** | 20 | 10 |
| | | EBL | 160 | **270** | **585** | **270** | **585** | 0 | 0 |
| | | EBR | 160 | **170** | **260** | **165** | **255** | -5 | -5 |
| | | WBL | 240 | **465** | 115 | **465** | 115 | 0 | 0 |
| | | WBR | 100 | **285** | **125** | **280** | **125** | -5 | 0 |
| 7 | Main Street / Delta Road | NBR | 100 | 20 | 15 | 20 | 15 | 0 | 0 |
| | | SBL | 95 | 70 | 45 | 70 | 45 | 0 | 0 |
| | | WBR | 100 | 75 | 5 | 75 | 5 | 0 | 0 |

Notes:

Storage length and 95th percentile queue is expressed in feet per lane.

**Bold** indicates overflow.

*Indicates a future planned intersection, thus turn pocket lengths are assumed.

# Appendix A

## Existing Conditions LOS Reports

**Intersection Level Of Service Report**
**Intersection 1: Sellers Rd/E Cypress Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 18.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.535 |

**Intersection Setup**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 185.00 | 100.00 | 100.00 | 250.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 45.00 | | | 50.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 96 | 5 | 47 | 1 | 2 | 8 | 11 | 289 | 177 | 95 | 501 | 1 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 96 | 5 | 47 | 1 | 2 | 8 | 11 | 289 | 177 | 95 | 501 | 1 |
| Peak Hour Factor | 0.7700 | 0.7700 | 0.7700 | 0.6900 | 0.6900 | 0.6900 | 0.8100 | 0.8100 | 0.8100 | 0.7000 | 0.7000 | 0.7000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 31 | 2 | 15 | 0 | 1 | 3 | 3 | 89 | 55 | 34 | 179 | 0 |
| Total Analysis Volume [veh/h] | 125 | 6 | 61 | 1 | 3 | 12 | 14 | 357 | 219 | 136 | 716 | 1 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Free Running |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 0 | 8 | 0 | 0 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | - | - | - | - | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 |
| Maximum Green [s] | 0 | 30 | 0 | 0 | 30 | 0 | 30 | 60 | 0 | 30 | 60 | 0 |
| Amber [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 4.0 | 0.0 | 3.0 | 4.0 | 0.0 |
| All red [s] | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 2.0 | 0.0 | 1.0 | 2.0 | 0.0 |
| Split [s] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vehicle Extension [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Minimum Recall | | No | | | No | | No | No | | No | No | |
| Maximum Recall | | No | | | No | | No | No | | No | No | |
| Pedestrian Recall | | No | | | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | C | C | L | C | L | C |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 52 | 52 | 52 | 52 | 52 | 52 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 6.00 | 4.00 | 6.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 4.00 | 2.00 | 4.00 |
| g_i, Effective Green Time [s] | 7 | 1 | 0 | 21 | 5 | 25 |
| g / C, Green / Cycle | 0.14 | 0.01 | 0.01 | 0.40 | 0.10 | 0.49 |
| (v / s)_i Volume / Saturation Flow Rate | 0.11 | 0.01 | 0.01 | 0.33 | 0.08 | 0.39 |
| s, saturation flow rate [veh/h] | 1690 | 1620 | 1752 | 1724 | 1752 | 1840 |
| c, Capacity [veh/h] | 242 | 16 | 15 | 688 | 177 | 903 |
| d1, Uniform Delay [s] | 21.47 | 25.66 | 25.69 | 14.07 | 22.73 | 11.01 |
| k, delay calibration | 0.04 | 0.04 | 0.04 | 0.15 | 0.04 | 0.15 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 2.23 | 57.49 | 49.22 | 3.94 | 2.67 | 2.31 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| X, volume / capacity | 0.79 | 0.98 | 0.93 | 0.84 | 0.77 | 0.79 |
|---|---|---|---|---|---|---|
| d, Delay for Lane Group [s/veh] | 23.71 | 83.16 | 74.91 | 18.02 | 25.41 | 13.32 |
| Lane Group LOS | C | F | E | B | C | B |
| Critical Lane Group | Yes | Yes | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 2.00 | 0.43 | 0.36 | 5.15 | 1.48 | 4.73 |
| 50th-Percentile Queue Length [ft/ln] | 49.94 | 10.75 | 8.92 | 128.72 | 36.97 | 118.20 |
| 95th-Percentile Queue Length [veh/ln] | 3.60 | 0.77 | 0.64 | 8.87 | 2.66 | 8.29 |
| 95th-Percentile Queue Length [ft/ln] | 89.89 | 19.35 | 16.06 | 221.75 | 66.54 | 207.36 |

**Movement, Approach, & Intersection Results**

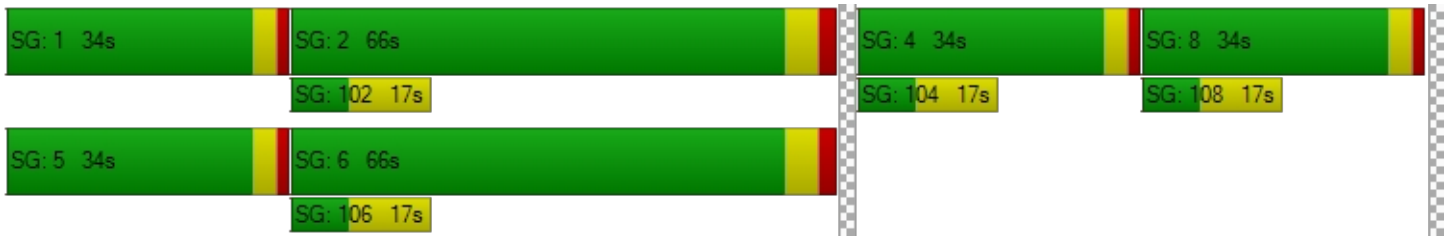
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 23.71 | 23.71 | 23.71 | 83.16 | 83.16 | 83.16 | 74.91 | 18.02 | 18.02 | 25.41 | 13.32 | 13.32 |
| Movement LOS | C | C | C | F | F | F | E | B | B | C | B | B |
| d_A, Approach Delay [s/veh] | 23.71 | | | 83.16 | | | 19.37 | | | 15.24 | | |
| Approach LOS | C | | | F | | | B | | | B | | |
| d_I, Intersection Delay [s/veh] | 18.36 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.535 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.67 | 34.67 | 34.67 | 34.67 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.161 | 1.744 | 2.643 | 2.629 |
| Crosswalk LOS | B | A | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 667 | 667 | 1333 | 1333 |
| d_b, Bicycle Delay [s] | 20.00 | 20.00 | 5.00 | 5.00 |
| l_b,int, Bicycle LOS Score for Intersection | 1.876 | 1.586 | 2.533 | 2.967 |
| Bicycle LOS | A | A | B | C |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 4 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Sellers Rd/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 9.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.249 |

**Intersection Setup**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 40.00 | | | 40.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 33 | 86 | 36 | 3 | 142 | 15 | 13 | 63 | 41 | 38 | 63 | 3 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 33 | 86 | 36 | 3 | 142 | 15 | 13 | 63 | 41 | 38 | 63 | 3 |
| Peak Hour Factor | 0.8400 | 0.8400 | 0.8400 | 0.8700 | 0.8700 | 0.8700 | 0.7700 | 0.7700 | 0.7700 | 0.8100 | 0.8100 | 0.8100 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 10 | 26 | 11 | 1 | 41 | 4 | 4 | 20 | 13 | 12 | 19 | 1 |
| Total Analysis Volume [veh/h] | 39 | 102 | 43 | 3 | 163 | 17 | 17 | 82 | 53 | 47 | 78 | 4 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | |
|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 743 | 736 | 736 | 698 |
| Degree of Utilization, x | 0.25 | 0.25 | 0.21 | 0.18 |

**Movement, Approach, & Intersection Results**

| | | | | |
|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 0.97 | 0.98 | 0.77 | 0.67 |
| 95th-Percentile Queue Length [ft] | 24.36 | 24.48 | 19.32 | 16.85 |
| Approach Delay [s/veh] | 9.44 | 9.50 | 9.16 | 9.32 |
| Approach LOS | A | A | A | A |
| Intersection Delay [s/veh] | 9.37 | | | |
| Intersection LOS | A | | | |

**Intersection Level Of Service Report**
**Intersection 6: Main St/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 40.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.585 |

**Intersection Setup**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 305.00 | 100.00 | 100.00 | 215.00 | 100.00 | 215.00 | 160.00 | 100.00 | 100.00 | 300.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 480.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | | 40.00 | | | 40.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 107 | 348 | 91 | 61 | 465 | 164 | 176 | 56 | 101 | 176 | 162 | 104 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 107 | 348 | 91 | 61 | 465 | 164 | 176 | 56 | 101 | 176 | 162 | 104 |
| Peak Hour Factor | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.9000 | 0.9000 | 0.9000 | 0.6700 | 0.6700 | 0.6700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 33 | 109 | 28 | 19 | 145 | 51 | 49 | 16 | 28 | 66 | 60 | 39 |
| Total Analysis Volume [veh/h] | 134 | 435 | 114 | 76 | 581 | 205 | 196 | 62 | 112 | 263 | 242 | 155 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 2 | | | 0 | | | 2 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 2 | | | 0 | | | 2 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 1 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 115 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 108.0 |
| Offset Reference | Lagging Force-Off |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 0 | 1 | 6 | 0 | 7 | 4 | 0 | 3 | 8 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 6 | 10 | 0 | 6 | 10 | 0 | 6 | 6 | 0 | 6 | 6 | 0 |
| Maximum Green [s] | 20 | 40 | 0 | 16 | 40 | 0 | 16 | 20 | 0 | 16 | 20 | 0 |
| Amber [s] | 3.0 | 4.5 | 0.0 | 3.0 | 4.5 | 0.0 | 3.0 | 4.4 | 0.0 | 3.0 | 4.1 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 15 | 38 | 0 | 15 | 38 | 0 | 18 | 40 | 0 | 22 | 44 | 0 |
| Vehicle Extension [s] | 2.0 | 3.0 | 0.0 | 2.0 | 3.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 18 | 0 | 0 | 24 | 0 | 0 | 26 | 0 | 0 | 30 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 3.5 | 0.0 | 2.0 | 3.5 | 0.0 | 2.0 | 3.4 | 0.0 | 2.0 | 3.1 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | Yes | | No | Yes | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | R | L | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 |
| L, Total Lost Time per Cycle [s] | 4.00 | 5.50 | 5.50 | 4.00 | 5.50 | 5.50 | 4.00 | 5.40 | 5.40 | 4.00 | 5.10 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 3.50 | 3.50 | 2.00 | 3.50 | 3.50 | 2.00 | 3.40 | 3.40 | 2.00 | 3.10 |
| g_i, Effective Green Time [s] | 10 | 53 | 53 | 6 | 49 | 49 | 9 | 18 | 18 | 18 | 28 |
| g / C, Green / Cycle | 0.09 | 0.46 | 0.46 | 0.05 | 0.43 | 0.43 | 0.07 | 0.16 | 0.16 | 0.16 | 0.24 |
| (v / s)_i Volume / Saturation Flow Rate | 0.08 | 0.15 | 0.15 | 0.04 | 0.22 | 0.22 | 0.06 | 0.03 | 0.07 | 0.15 | 0.23 |
| s, saturation flow rate [veh/h] | 1767 | 1855 | 1724 | 1767 | 1855 | 1679 | 3431 | 1855 | 1565 | 1767 | 1735 |
| c, Capacity [veh/h] | 161 | 861 | 801 | 98 | 795 | 719 | 256 | 296 | 250 | 276 | 423 |
| d1, Uniform Delay [s] | 51.39 | 19.48 | 19.50 | 53.63 | 24.14 | 24.20 | 52.21 | 42.00 | 43.70 | 48.08 | 42.61 |
| k, delay calibration | 0.04 | 0.50 | 0.50 | 0.04 | 0.50 | 0.50 | 0.04 | 0.04 | 0.04 | 0.37 | 0.09 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 4.20 | 1.02 | 1.11 | 4.96 | 2.40 | 2.69 | 1.80 | 0.13 | 0.47 | 35.75 | 8.85 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.83 | 0.33 | 0.33 | 0.78 | 0.52 | 0.52 | 0.76 | 0.21 | 0.45 | 0.95 | 0.94 |
| d, Delay for Lane Group [s/veh] | 55.59 | 20.50 | 20.61 | 58.59 | 26.54 | 26.89 | 54.00 | 42.13 | 44.17 | 83.83 | 51.46 |
| Lane Group LOS | E | C | C | E | C | C | D | D | D | F | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | Yes | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 3.91 | 4.86 | 4.57 | 2.27 | 8.41 | 7.75 | 2.79 | 1.52 | 2.87 | 10.11 | 11.86 |
| 50th-Percentile Queue Length [ft/ln] | 97.87 | 121.47 | 114.19 | 56.67 | 210.19 | 193.73 | 69.74 | 37.94 | 71.63 | 252.73 | 296.56 |
| 95th-Percentile Queue Length [veh/ln] | 7.05 | 8.47 | 8.07 | 4.08 | 13.16 | 12.31 | 5.02 | 2.73 | 5.16 | 15.32 | 17.51 |
| 95th-Percentile Queue Length [ft/ln] | 176.16 | 211.84 | 201.82 | 102.01 | 329.07 | 307.87 | 125.54 | 68.29 | 128.93 | 383.09 | 437.78 |

**Movement, Approach, & Intersection Results**

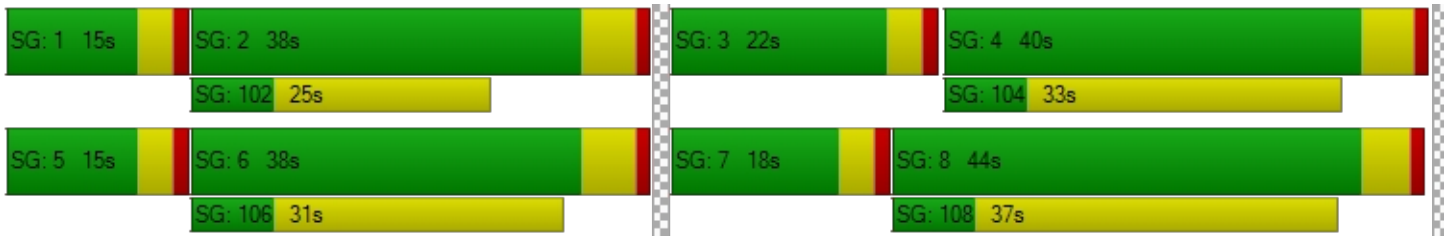
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 55.59 | 20.54 | 20.61 | 58.59 | 26.64 | 26.89 | 54.00 | 42.13 | 44.17 | 83.83 | 51.46 | 51.46 |
| Movement LOS | E | C | C | E | C | C | D | D | D | F | D | D |
| d_A, Approach Delay [s/veh] | 27.43 | | | 29.52 | | | 49.04 | | | 64.36 | | |
| Approach LOS | C | | | C | | | D | | | E | | |
| d_I, Intersection Delay [s/veh] | 40.70 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.585 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 2019.95 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 47.03 | 47.03 | 47.03 | 47.03 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.738 | 2.740 | 2.671 | 2.298 |
| Crosswalk LOS | B | B | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 565 | 565 | 602 | 677 |
| d_b, Bicycle Delay [s] | 29.59 | 29.61 | 28.11 | 25.18 |
| l_b,int, Bicycle LOS Score for Intersection | 2.123 | 2.271 | 2.170 | 2.649 |
| Bicycle LOS | B | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main St/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 93.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | F |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.566 |

**Intersection Setup**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 95.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | 40.00 | | 40.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | No | |

**Volumes**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 348 | 66 | 151 | 569 | 51 | 190 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 348 | 66 | 151 | 569 | 51 | 190 |
| Peak Hour Factor | 0.9000 | 0.9000 | 0.7800 | 0.7800 | 0.8600 | 0.8600 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 97 | 18 | 48 | 182 | 15 | 55 |
| Total Analysis Volume [veh/h] | 387 | 73 | 194 | 729 | 59 | 221 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.18 | 0.01 | 0.57 | 0.35 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.97 | 0.00 | 92.97 | 64.16 |
| Movement LOS | A | A | A | A | F | F |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.64 | 0.00 | 8.78 | 8.78 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 15.98 | 0.00 | 219.46 | 219.46 |
| d_A, Approach Delay [s/veh] | 0.00 | | 1.89 | | 70.23 | |
| Approach LOS | A | | A | | F | |
| d_I, Intersection Delay [s/veh] | 12.87 | | | | | |
| Intersection LOS | F | | | | | |

**Intersection Level Of Service Report**
**Intersection 1: Sellers Rd/E Cypress Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 17.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.487 |

**Intersection Setup**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 185.00 | 100.00 | 100.00 | 250.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 45.00 | | | 50.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 86 | 2 | 106 | 3 | 0 | 10 | 1 | 379 | 96 | 68 | 283 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 86 | 2 | 106 | 3 | 0 | 10 | 1 | 379 | 96 | 68 | 283 | 0 |
| Peak Hour Factor | 0.8400 | 0.8400 | 0.8400 | 0.6500 | 0.6500 | 0.6500 | 0.9200 | 0.9200 | 0.9200 | 0.9100 | 0.9100 | 0.9100 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 26 | 1 | 32 | 1 | 0 | 4 | 0 | 103 | 26 | 19 | 78 | 0 |
| Total Analysis Volume [veh/h] | 102 | 2 | 126 | 5 | 0 | 15 | 1 | 412 | 104 | 75 | 311 | 0 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 1 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Free Running |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 0 | 8 | 0 | 0 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | - | - | - | - | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 |
| Maximum Green [s] | 0 | 30 | 0 | 0 | 30 | 0 | 30 | 60 | 0 | 30 | 60 | 0 |
| Amber [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 4.0 | 0.0 | 3.0 | 4.0 | 0.0 |
| All red [s] | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 2.0 | 0.0 | 1.0 | 2.0 | 0.0 |
| Split [s] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vehicle Extension [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Minimum Recall | | No | | | No | | No | No | | No | No | |
| Maximum Recall | | No | | | No | | No | No | | No | No | |
| Pedestrian Recall | | No | | | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | C | C | L | C | L | C |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 45 | 45 | 45 | 45 | 45 | 45 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 6.00 | 4.00 | 6.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 4.00 | 2.00 | 4.00 |
| g_i, Effective Green Time [s] | 8 | 1 | 0 | 17 | 2 | 19 |
| g / C, Green / Cycle | 0.17 | 0.01 | 0.00 | 0.36 | 0.05 | 0.42 |
| (v / s)_i Volume / Saturation Flow Rate | 0.14 | 0.01 | 0.00 | 0.29 | 0.04 | 0.17 |
| s, saturation flow rate [veh/h] | 1645 | 1607 | 1752 | 1768 | 1752 | 1840 |
| c, Capacity [veh/h] | 288 | 21 | 1 | 642 | 95 | 767 |
| d1, Uniform Delay [s] | 18.05 | 22.51 | 22.80 | 13.07 | 21.31 | 9.33 |
| k, delay calibration | 0.04 | 0.04 | 0.04 | 0.15 | 0.04 | 0.15 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 1.95 | 48.22 | 249.16 | 3.40 | 5.30 | 0.49 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| X, volume / capacity | 0.80 | 0.97 | 0.99 | 0.80 | 0.79 | 0.41 |
|---|---|---|---|---|---|---|
| d, Delay for Lane Group [s/veh] | 20.00 | 70.73 | 271.96 | 16.47 | 26.61 | 9.82 |
| Lane Group LOS | C | E | F | B | C | A |
| Critical Lane Group | Yes | Yes | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 1.93 | 0.45 | 0.08 | 3.88 | 0.78 | 1.45 |
| 50th-Percentile Queue Length [ft/ln] | 48.27 | 11.32 | 1.98 | 96.91 | 19.49 | 36.14 |
| 95th-Percentile Queue Length [veh/ln] | 3.48 | 0.82 | 0.14 | 6.98 | 1.40 | 2.60 |
| 95th-Percentile Queue Length [ft/ln] | 86.88 | 20.38 | 3.56 | 174.43 | 35.08 | 65.05 |

**Movement, Approach, & Intersection Results**

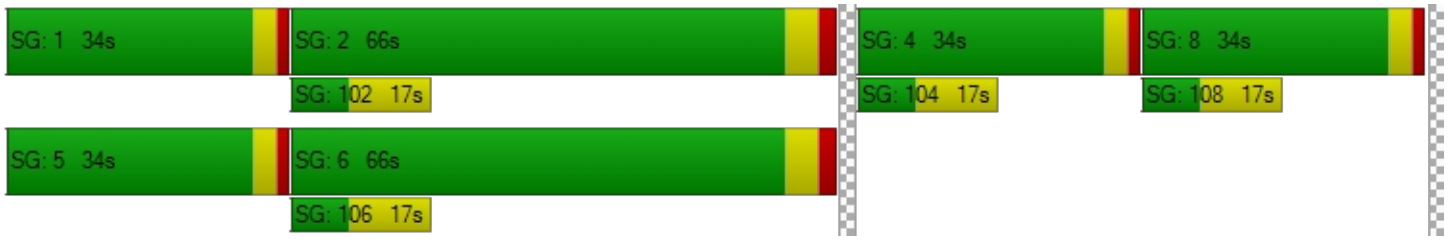
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 20.00 | 20.00 | 20.00 | 70.73 | 70.73 | 70.73 | 271.96 | 16.47 | 16.47 | 26.61 | 9.82 | 9.82 |
| Movement LOS | C | C | C | E | E | E | F | B | B | C | A | A |
| d_A, Approach Delay [s/veh] | 20.00 | | | 70.73 | | | 16.96 | | | 13.08 | | |
| Approach LOS | C | | | E | | | B | | | B | | |
| d_I, Intersection Delay [s/veh] | 17.20 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.487 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.67 | 34.67 | 34.67 | 34.67 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.047 | 1.733 | 2.400 | 2.443 |
| Crosswalk LOS | B | A | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 667 | 667 | 1333 | 1333 |
| d_b, Bicycle Delay [s] | 20.00 | 20.00 | 5.00 | 5.00 |
| l_b,int, Bicycle LOS Score for Intersection | 1.939 | 1.593 | 2.413 | 2.197 |
| Bicycle LOS | A | A | B | B |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 4 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Sellers Rd/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 13.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.575 |

**Intersection Setup**

| Name | Sellers Rd | | | Sellers Rd | | | Delta Rd | | | Delta Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 40.00 | | | 40.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Sellers Rd | | | Sellers Rd | | | Delta Rd | | | Delta Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 88 | 203 | 51 | 13 | 149 | 22 | 34 | 113 | 52 | 43 | 85 | 21 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 88 | 203 | 51 | 13 | 149 | 22 | 34 | 113 | 52 | 43 | 85 | 21 |
| Peak Hour Factor | 0.8900 | 0.8900 | 0.8900 | 0.9200 | 0.9200 | 0.9200 | 0.9800 | 0.9800 | 0.9800 | 0.8500 | 0.8500 | 0.8500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 25 | 57 | 14 | 4 | 40 | 6 | 9 | 29 | 13 | 13 | 25 | 6 |
| Total Analysis Volume [veh/h] | 99 | 228 | 57 | 14 | 162 | 24 | 35 | 115 | 53 | 51 | 100 | 25 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | |
|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 668 | 634 | 620 | 605 |
| Degree of Utilization, x | 0.57 | 0.32 | 0.33 | 0.29 |

**Movement, Approach, & Intersection Results**

| | | | | |
|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 3.68 | 1.35 | 1.42 | 1.20 |
| 95th-Percentile Queue Length [ft] | 91.94 | 33.71 | 35.50 | 30.08 |
| Approach Delay [s/veh] | 15.42 | 11.27 | 11.60 | 11.37 |
| Approach LOS | C | B | B | B |
| Intersection Delay [s/veh] | 13.01 | | | |
| Intersection LOS | B | | | |

**Intersection Level Of Service Report**
**Intersection 6: Main St/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 32.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.386 |

**Intersection Setup**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 305.00 | 100.00 | 100.00 | 215.00 | 100.00 | 215.00 | 160.00 | 100.00 | 100.00 | 300.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 480.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | | 40.00 | | | 40.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 136 | 370 | 94 | 95 | 326 | 129 | 165 | 162 | 123 | 58 | 95 | 57 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 136 | 370 | 94 | 95 | 326 | 129 | 165 | 162 | 123 | 58 | 95 | 57 |
| Peak Hour Factor | 0.8900 | 0.8900 | 0.8900 | 0.8800 | 0.8800 | 0.8800 | 0.9600 | 0.9600 | 0.9600 | 0.8600 | 0.8600 | 0.8600 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 38 | 104 | 26 | 27 | 93 | 37 | 43 | 42 | 32 | 17 | 28 | 17 |
| Total Analysis Volume [veh/h] | 153 | 416 | 106 | 108 | 370 | 147 | 172 | 169 | 128 | 67 | 110 | 66 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 1 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 1 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 1 | | | 0 | | | 0 | | | 1 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 1 | | | 0 | | | 0 | | | 1 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 1 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 115 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 108.0 |
| Offset Reference | Lagging Force-Off |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 0 | 1 | 6 | 0 | 7 | 4 | 0 | 3 | 8 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 6 | 10 | 0 | 6 | 10 | 0 | 6 | 6 | 0 | 6 | 6 | 0 |
| Maximum Green [s] | 20 | 40 | 0 | 16 | 40 | 0 | 16 | 20 | 0 | 16 | 20 | 0 |
| Amber [s] | 3.0 | 4.5 | 0.0 | 3.0 | 4.5 | 0.0 | 3.0 | 4.4 | 0.0 | 3.0 | 4.1 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 15 | 38 | 0 | 15 | 38 | 0 | 18 | 40 | 0 | 22 | 44 | 0 |
| Vehicle Extension [s] | 2.0 | 3.0 | 0.0 | 2.0 | 3.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 18 | 0 | 0 | 24 | 0 | 0 | 26 | 0 | 0 | 30 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 3.5 | 0.0 | 2.0 | 3.5 | 0.0 | 2.0 | 3.4 | 0.0 | 2.0 | 3.1 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | Yes | | No | Yes | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | R | L | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 |
| L, Total Lost Time per Cycle [s] | 4.00 | 5.50 | 5.50 | 4.00 | 5.50 | 5.50 | 4.00 | 5.40 | 5.40 | 4.00 | 5.10 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 3.50 | 3.50 | 2.00 | 3.50 | 3.50 | 2.00 | 3.40 | 3.40 | 2.00 | 3.10 |
| g_i, Effective Green Time [s] | 11 | 66 | 66 | 9 | 64 | 64 | 8 | 15 | 15 | 6 | 14 |
| g / C, Green / Cycle | 0.10 | 0.58 | 0.58 | 0.08 | 0.56 | 0.56 | 0.07 | 0.13 | 0.13 | 0.05 | 0.12 |
| (v / s)_i Volume / Saturation Flow Rate | 0.09 | 0.15 | 0.15 | 0.06 | 0.15 | 0.15 | 0.05 | 0.09 | 0.08 | 0.04 | 0.10 |
| s, saturation flow rate [veh/h] | 1767 | 1855 | 1726 | 1767 | 1855 | 1679 | 3431 | 1855 | 1573 | 1767 | 1730 |
| c, Capacity [veh/h] | 170 | 1069 | 995 | 134 | 1031 | 933 | 232 | 249 | 211 | 87 | 205 |
| d1, Uniform Delay [s] | 51.41 | 12.07 | 12.08 | 52.33 | 13.27 | 13.30 | 52.61 | 47.41 | 46.90 | 54.03 | 49.75 |
| k, delay calibration | 0.04 | 0.50 | 0.50 | 0.04 | 0.50 | 0.50 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 6.64 | 0.57 | 0.61 | 4.35 | 0.62 | 0.69 | 1.75 | 1.21 | 1.04 | 5.30 | 4.04 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.90 | 0.25 | 0.25 | 0.81 | 0.26 | 0.26 | 0.74 | 0.68 | 0.61 | 0.77 | 0.86 |
| d, Delay for Lane Group [s/veh] | 58.05 | 12.63 | 12.69 | 56.68 | 13.89 | 14.00 | 54.36 | 48.62 | 47.94 | 59.32 | 53.79 |
| Lane Group LOS | E | B | B | E | B | B | D | D | D | E | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | Yes | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 4.59 | 3.38 | 3.18 | 3.17 | 3.60 | 3.32 | 2.45 | 4.61 | 3.45 | 2.03 | 5.14 |
| 50th-Percentile Queue Length [ft/ln] | 114.80 | 84.41 | 79.50 | 79.37 | 89.92 | 82.99 | 61.28 | 115.13 | 86.22 | 50.68 | 128.47 |
| 95th-Percentile Queue Length [veh/ln] | 8.11 | 6.08 | 5.72 | 5.71 | 6.47 | 5.98 | 4.41 | 8.12 | 6.21 | 3.65 | 8.86 |
| 95th-Percentile Queue Length [ft/ln] | 202.66 | 151.94 | 143.10 | 142.87 | 161.86 | 149.39 | 110.30 | 203.12 | 155.19 | 91.22 | 221.41 |

**Movement, Approach, & Intersection Results**

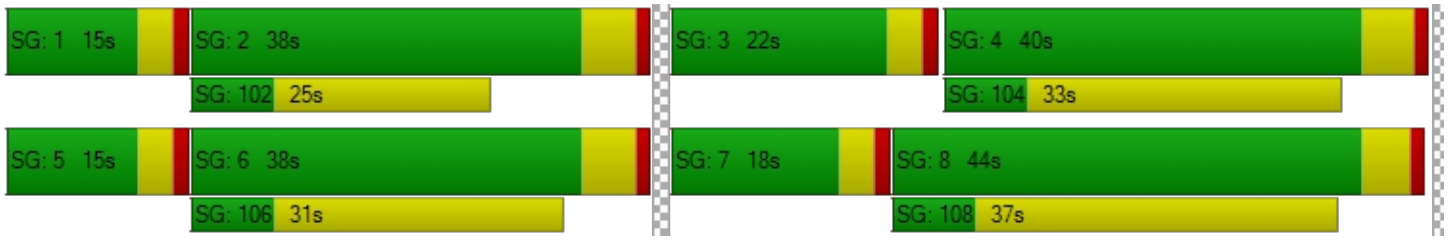
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 58.05 | 12.65 | 12.69 | 56.68 | 13.92 | 14.00 | 54.36 | 48.62 | 47.94 | 59.32 | 53.79 | 53.79 |
| Movement LOS | E | B | B | E | B | B | D | D | D | E | D | D |
| d_A, Approach Delay [s/veh] | 22.95 | | | 21.33 | | | 50.54 | | | 55.31 | | |
| Approach LOS | C | | | C | | | D | | | E | | |
| d_I, Intersection Delay [s/veh] | 32.79 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.386 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 7881.94 | 0.00 | 0.00 | 3329.98 |
| d_p, Pedestrian Delay [s] | 47.03 | 47.03 | 47.03 | 47.03 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.634 | 2.644 | 2.655 | 2.189 |
| Crosswalk LOS | B | B | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 565 | 565 | 602 | 677 |
| d_b, Bicycle Delay [s] | 29.59 | 29.59 | 28.11 | 25.19 |
| l_b,int, Bicycle LOS Score for Intersection | 2.116 | 2.075 | 2.333 | 1.961 |
| Bicycle LOS | B | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main St/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 54.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | F |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.375 |

**Intersection Setup**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 95.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | 40.00 | | 40.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | No | |

**Volumes**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 562 | 98 | 112 | 445 | 48 | 134 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 562 | 98 | 112 | 445 | 48 | 134 |
| Peak Hour Factor | 0.9400 | 0.9400 | 0.9100 | 0.9100 | 0.9500 | 0.9500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 149 | 26 | 31 | 122 | 13 | 35 |
| Total Analysis Volume [veh/h] | 598 | 104 | 123 | 489 | 51 | 141 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.01 | 0.00 | 0.14 | 0.00 | 0.37 | 0.30 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 9.67 | 0.00 | 54.31 | 35.52 |
| Movement LOS | A | A | A | A | F | E |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.48 | 0.00 | 4.50 | 4.50 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 11.91 | 0.00 | 112.44 | 112.44 |
| d_A, Approach Delay [s/veh] | 0.00 | | 1.94 | | 40.51 | |
| Approach LOS | A | | A | | E | |
| d_I, Intersection Delay [s/veh] | 5.95 | | | | | |
| Intersection LOS | F | | | | | |

# Appendix B

## Existing plus Project Conditions LOS Reports

**Intersection Level Of Service Report**
**Intersection 1: Sellers Rd/E Cypress Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 19.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.572 |

**Intersection Setup**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 185.00 | 100.00 | 100.00 | 250.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 45.00 | | | 50.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 96 | 5 | 47 | 1 | 2 | 8 | 11 | 289 | 177 | 95 | 501 | 1 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 132 | 5 | 47 | 1 | 2 | 8 | 11 | 289 | 190 | 95 | 501 | 1 |
| Peak Hour Factor | 0.7700 | 0.7700 | 0.7700 | 0.6900 | 0.6900 | 0.6900 | 0.8100 | 0.8100 | 0.8100 | 0.7000 | 0.7000 | 0.7000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 43 | 2 | 15 | 0 | 1 | 3 | 3 | 89 | 59 | 34 | 179 | 0 |
| Total Analysis Volume [veh/h] | 171 | 6 | 61 | 1 | 3 | 12 | 14 | 357 | 235 | 136 | 716 | 1 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Free Running |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 0 | 8 | 0 | 0 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | - | - | - | - | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 |
| Maximum Green [s] | 0 | 30 | 0 | 0 | 30 | 0 | 30 | 60 | 0 | 30 | 60 | 0 |
| Amber [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 4.0 | 0.0 | 3.0 | 4.0 | 0.0 |
| All red [s] | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 2.0 | 0.0 | 1.0 | 2.0 | 0.0 |
| Split [s] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vehicle Extension [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Minimum Recall | | No | | | No | | No | No | | No | No | |
| Maximum Recall | | No | | | No | | No | No | | No | No | |
| Pedestrian Recall | | No | | | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | C | C | L | C | L | C |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 57 | 57 | 57 | 57 | 57 | 57 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 6.00 | 4.00 | 6.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 4.00 | 2.00 | 4.00 |
| g_i, Effective Green Time [s] | 10 | 1 | 0 | 23 | 6 | 28 |
| g / C, Green / Cycle | 0.17 | 0.01 | 0.01 | 0.40 | 0.10 | 0.50 |
| (v / s)_i Volume / Saturation Flow Rate | 0.14 | 0.01 | 0.01 | 0.34 | 0.08 | 0.39 |
| s, saturation flow rate [veh/h] | 1702 | 1620 | 1752 | 1720 | 1752 | 1840 |
| c, Capacity [veh/h] | 291 | 17 | 15 | 694 | 176 | 912 |
| d1, Uniform Delay [s] | 22.86 | 28.31 | 28.34 | 15.51 | 25.10 | 11.93 |
| k, delay calibration | 0.04 | 0.04 | 0.04 | 0.15 | 0.04 | 0.15 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 2.18 | 54.81 | 47.40 | 4.33 | 2.71 | 2.19 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| X, volume / capacity | 0.82 | 0.97 | 0.92 | 0.85 | 0.77 | 0.79 |
|---|---|---|---|---|---|---|
| d, Delay for Lane Group [s/veh] | 25.04 | 83.12 | 75.74 | 19.84 | 27.81 | 14.12 |
| Lane Group LOS | C | F | E | B | C | B |
| Critical Lane Group | Yes | Yes | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 2.76 | 0.44 | 0.37 | 6.16 | 1.68 | 5.50 |
| 50th-Percentile Queue Length [ft/ln] | 69.12 | 11.10 | 9.29 | 153.89 | 41.92 | 137.58 |
| 95th-Percentile Queue Length [veh/ln] | 4.98 | 0.80 | 0.67 | 10.22 | 3.02 | 9.35 |
| 95th-Percentile Queue Length [ft/ln] | 124.42 | 19.98 | 16.73 | 255.62 | 75.46 | 233.76 |

**Movement, Approach, & Intersection Results**

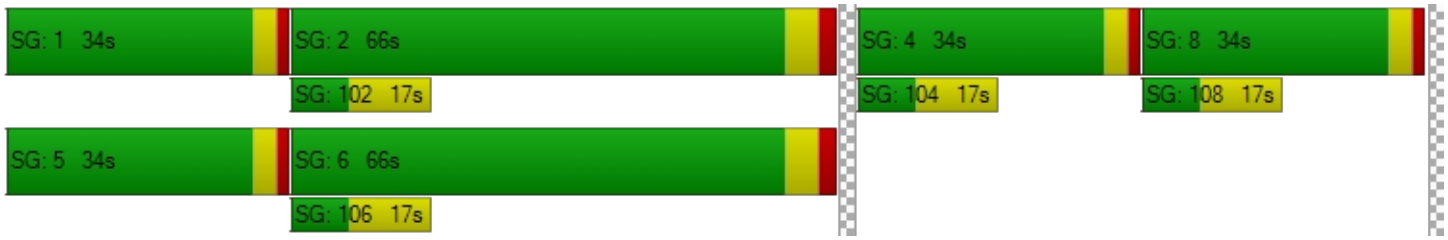
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 25.04 | 25.04 | 25.04 | 83.12 | 83.12 | 83.12 | 75.74 | 19.84 | 19.84 | 27.81 | 14.12 | 14.12 |
| Movement LOS | C | C | C | F | F | F | E | B | B | C | B | B |
| d_A, Approach Delay [s/veh] | 25.04 | | | 83.12 | | | 21.13 | | | 16.30 | | |
| Approach LOS | C | | | F | | | C | | | B | | |
| d_I, Intersection Delay [s/veh] | 19.85 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.572 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.67 | 34.67 | 34.67 | 34.67 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.212 | 1.744 | 2.673 | 2.629 |
| Crosswalk LOS | B | A | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 667 | 667 | 1333 | 1333 |
| d_b, Bicycle Delay [s] | 20.00 | 20.00 | 5.00 | 5.00 |
| l_b,int, Bicycle LOS Score for Intersection | 1.952 | 1.586 | 2.560 | 2.967 |
| Bicycle LOS | A | A | B | C |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 4 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Sellers Rd/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 9.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.261 |

**Intersection Setup**

| Name | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 40.00 | | | 40.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 33 | 86 | 36 | 3 | 142 | 15 | 13 | 63 | 41 | 38 | 63 | 3 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 1 | 0 | 0 | 1 | 7 | 3 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 33 | 87 | 36 | 3 | 143 | 22 | 16 | 63 | 41 | 38 | 63 | 3 |
| Peak Hour Factor | 0.8400 | 0.8400 | 0.8400 | 0.8700 | 0.8700 | 0.8700 | 0.7700 | 0.7700 | 0.7700 | 0.8100 | 0.8100 | 0.8100 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 10 | 26 | 11 | 1 | 41 | 6 | 5 | 20 | 13 | 12 | 19 | 1 |
| Total Analysis Volume [veh/h] | 39 | 104 | 43 | 3 | 164 | 25 | 21 | 82 | 53 | 47 | 78 | 4 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | |
|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 738 | 736 | 730 | 693 |
| Degree of Utilization, x | 0.25 | 0.26 | 0.21 | 0.19 |

**Movement, Approach, & Intersection Results**

| | | | | |
|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 1.00 | 1.04 | 0.81 | 0.68 |
| 95th-Percentile Queue Length [ft] | 24.90 | 26.06 | 20.16 | 17.00 |
| Approach Delay [s/veh] | 9.51 | 9.61 | 9.27 | 9.38 |
| Approach LOS | A | A | A | A |
| Intersection Delay [s/veh] | 9.46 | | | |
| Intersection LOS | A | | | |

**Intersection Level Of Service Report**
**Intersection 4: Sellers Rd/Project Access 1**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.032 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Rd | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Rd | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 148 | 274 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 2 | 18 | 7 | 6 | 18 | 4 |
| Total Hourly Volume [veh/h] | 2 | 166 | 281 | 6 | 18 | 4 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 42 | 70 | 2 | 5 | 1 |
| Total Analysis Volume [veh/h] | 2 | 166 | 281 | 6 | 18 | 4 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.01 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 7.83 | 0.00 | 0.00 | 0.00 | 11.63 | 10.00 |
| Movement LOS | A | A | A | A | B | B |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 0.12 | 0.12 |
| 95th-Percentile Queue Length [ft/ln] | 0.12 | 0.12 | 0.00 | 0.00 | 2.90 | 2.90 |
| d_A, Approach Delay [s/veh] | 0.09 | | 0.00 | | 11.34 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.56 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 5: Sellers Rd/Project Access 2**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.031 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Rd | | Project Access 2 | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Rd | | Project Access 2 | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 148 | 274 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 2 | 2 | 4 | 7 | 18 | 4 |
| Total Hourly Volume [veh/h] | 2 | 150 | 278 | 7 | 18 | 4 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 38 | 70 | 2 | 5 | 1 |
| Total Analysis Volume [veh/h] | 2 | 150 | 278 | 7 | 18 | 4 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.01 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 7.82 | 0.00 | 0.00 | 0.00 | 11.47 | 9.98 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.11 |
| 95th-Percentile Queue Length [ft/ln] | 0.12 | 0.12 | 0.00 | 0.00 | 2.84 | 2.84 |
| d_A, Approach Delay [s/veh] | 0.10 | | 0.00 | | 11.20 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.57 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 6: Main St/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 40.9 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.600 |

**Intersection Setup**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 305.00 | 100.00 | 100.00 | 215.00 | 100.00 | 215.00 | 160.00 | 100.00 | 100.00 | 300.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 480.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | | 40.00 | | | 40.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 107 | 348 | 91 | 61 | 465 | 164 | 176 | 56 | 101 | 176 | 162 | 104 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 28 | 10 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 107 | 348 | 91 | 61 | 465 | 192 | 186 | 56 | 101 | 176 | 162 | 104 |
| Peak Hour Factor | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.9000 | 0.9000 | 0.9000 | 0.6700 | 0.6700 | 0.6700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 33 | 109 | 28 | 19 | 145 | 60 | 52 | 16 | 28 | 66 | 60 | 39 |
| Total Analysis Volume [veh/h] | 134 | 435 | 114 | 76 | 581 | 240 | 207 | 62 | 112 | 263 | 242 | 155 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 2 | | | 0 | | | 2 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 2 | | | 0 | | | 2 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 1 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 115 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 108.0 |
| Offset Reference | Lagging Force-Off |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 0 | 1 | 6 | 0 | 7 | 4 | 0 | 3 | 8 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 6 | 10 | 0 | 6 | 10 | 0 | 6 | 6 | 0 | 6 | 6 | 0 |
| Maximum Green [s] | 20 | 40 | 0 | 16 | 40 | 0 | 16 | 20 | 0 | 16 | 20 | 0 |
| Amber [s] | 3.0 | 4.5 | 0.0 | 3.0 | 4.5 | 0.0 | 3.0 | 4.4 | 0.0 | 3.0 | 4.1 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 15 | 38 | 0 | 15 | 38 | 0 | 18 | 40 | 0 | 22 | 44 | 0 |
| Vehicle Extension [s] | 2.0 | 3.0 | 0.0 | 2.0 | 3.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 18 | 0 | 0 | 24 | 0 | 0 | 26 | 0 | 0 | 30 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 3.5 | 0.0 | 2.0 | 3.5 | 0.0 | 2.0 | 3.4 | 0.0 | 2.0 | 3.1 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | Yes | | No | Yes | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | R | L | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 |
| L, Total Lost Time per Cycle [s] | 4.00 | 5.50 | 5.50 | 4.00 | 5.50 | 5.50 | 4.00 | 5.40 | 5.40 | 4.00 | 5.10 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 3.50 | 3.50 | 2.00 | 3.50 | 3.50 | 2.00 | 3.40 | 3.40 | 2.00 | 3.10 |
| g_i, Effective Green Time [s] | 10 | 53 | 53 | 6 | 49 | 49 | 9 | 19 | 19 | 18 | 28 |
| g / C, Green / Cycle | 0.09 | 0.46 | 0.46 | 0.05 | 0.43 | 0.43 | 0.08 | 0.16 | 0.16 | 0.16 | 0.24 |
| (v / s)_i Volume / Saturation Flow Rate | 0.08 | 0.15 | 0.15 | 0.04 | 0.23 | 0.23 | 0.06 | 0.03 | 0.07 | 0.15 | 0.23 |
| s, saturation flow rate [veh/h] | 1767 | 1855 | 1724 | 1767 | 1855 | 1659 | 3431 | 1855 | 1565 | 1767 | 1735 |
| c, Capacity [veh/h] | 161 | 855 | 795 | 98 | 789 | 705 | 267 | 302 | 255 | 276 | 423 |
| d1, Uniform Delay [s] | 51.39 | 19.71 | 19.74 | 53.63 | 24.76 | 24.83 | 52.03 | 41.68 | 43.37 | 48.08 | 42.61 |
| k, delay calibration | 0.04 | 0.50 | 0.50 | 0.04 | 0.50 | 0.50 | 0.04 | 0.04 | 0.04 | 0.37 | 0.10 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 4.20 | 1.04 | 1.13 | 4.96 | 2.72 | 3.10 | 1.82 | 0.12 | 0.44 | 35.75 | 9.16 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.83 | 0.33 | 0.33 | 0.78 | 0.55 | 0.55 | 0.77 | 0.21 | 0.44 | 0.95 | 0.94 |
| d, Delay for Lane Group [s/veh] | 55.59 | 20.75 | 20.87 | 58.59 | 27.48 | 27.92 | 53.84 | 41.81 | 43.81 | 83.83 | 51.78 |
| Lane Group LOS | E | C | C | E | C | C | D | D | D | F | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | Yes | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 3.91 | 4.90 | 4.60 | 2.27 | 9.05 | 8.26 | 2.94 | 1.51 | 2.85 | 10.11 | 11.90 |
| 50th-Percentile Queue Length [ft/ln] | 97.87 | 122.39 | 115.06 | 56.67 | 226.22 | 206.39 | 73.62 | 37.77 | 71.29 | 252.73 | 297.49 |
| 95th-Percentile Queue Length [veh/ln] | 7.05 | 8.52 | 8.12 | 4.08 | 13.98 | 12.97 | 5.30 | 2.72 | 5.13 | 15.32 | 17.56 |
| 95th-Percentile Queue Length [ft/ln] | 176.16 | 213.10 | 203.01 | 102.01 | 349.55 | 324.19 | 132.52 | 67.99 | 128.33 | 383.09 | 438.92 |

**Movement, Approach, & Intersection Results**

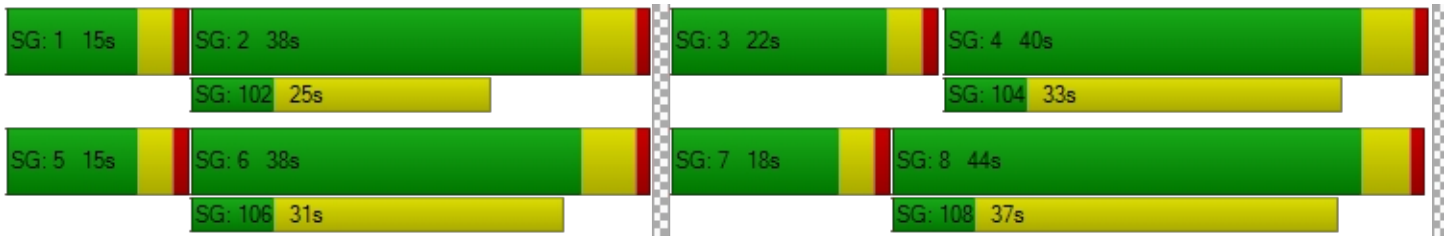
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 55.59 | 20.79 | 20.87 | 58.59 | 27.60 | 27.92 | 53.84 | 41.81 | 43.81 | 83.83 | 51.78 | 51.78 |
| Movement LOS | E | C | C | E | C | C | D | D | D | F | D | D |
| d_A, Approach Delay [s/veh] | 27.63 | | | 30.31 | | | 48.94 | | | 64.55 | | |
| Approach LOS | C | | | C | | | D | | | E | | |
| d_I, Intersection Delay [s/veh] | 40.94 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.600 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 2019.95 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 47.03 | 47.03 | 47.03 | 47.03 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.738 | 2.752 | 2.681 | 2.298 |
| Crosswalk LOS | B | C | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 565 | 565 | 602 | 677 |
| d_b, Bicycle Delay [s] | 29.59 | 29.61 | 28.11 | 25.18 |
| l_b,int, Bicycle LOS Score for Intersection | 2.123 | 2.300 | 2.188 | 2.649 |
| Bicycle LOS | B | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main St/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 113.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | F |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.645 |

**Intersection Setup**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 95.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | 40.00 | | 40.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | No | |

**Volumes**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 348 | 66 | 151 | 569 | 51 | 190 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 3 | 0 | 0 | 7 | 0 |
| Total Hourly Volume [veh/h] | 348 | 69 | 151 | 569 | 58 | 190 |
| Peak Hour Factor | 0.9000 | 0.9000 | 0.7800 | 0.7800 | 0.8600 | 0.8600 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 97 | 19 | 48 | 182 | 17 | 55 |
| Total Analysis Volume [veh/h] | 387 | 77 | 194 | 729 | 67 | 221 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.18 | 0.01 | 0.64 | 0.35 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 8.99 | 0.00 | 113.61 | 84.70 |
| Movement LOS | A | A | A | A | F | F |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.64 | 0.00 | 10.33 | 10.33 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 16.04 | 0.00 | 258.26 | 258.26 |
| d_A, Approach Delay [s/veh] | 0.00 | | 1.89 | | 91.43 | |
| Approach LOS | A | | A | | F | |
| d_I, Intersection Delay [s/veh] | 16.76 | | | | | |
| Intersection LOS | F | | | | | |

**Intersection Level Of Service Report**
**Intersection 1: Sellers Rd/E Cypress Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 18.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.535 |

**Intersection Setup**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 185.00 | 100.00 | 100.00 | 250.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 45.00 | | | 50.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 86 | 2 | 106 | 3 | 0 | 10 | 1 | 379 | 96 | 68 | 283 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 25 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 42 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 111 | 2 | 107 | 3 | 0 | 10 | 1 | 379 | 138 | 68 | 283 | 0 |
| Peak Hour Factor | 0.8400 | 0.8400 | 0.8400 | 0.6500 | 0.6500 | 0.6500 | 0.9200 | 0.9200 | 0.9200 | 0.9100 | 0.9100 | 0.9100 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 33 | 1 | 32 | 1 | 0 | 4 | 0 | 103 | 38 | 19 | 78 | 0 |
| Total Analysis Volume [veh/h] | 132 | 2 | 127 | 5 | 0 | 15 | 1 | 412 | 150 | 75 | 311 | 0 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 1 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Free Running |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Permiss | Permiss | Permiss | Permiss | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 0 | 8 | 0 | 0 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | - | - | - | - | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 |
| Maximum Green [s] | 0 | 30 | 0 | 0 | 30 | 0 | 30 | 60 | 0 | 30 | 60 | 0 |
| Amber [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 4.0 | 0.0 | 3.0 | 4.0 | 0.0 |
| All red [s] | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 2.0 | 0.0 | 1.0 | 2.0 | 0.0 |
| Split [s] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vehicle Extension [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Minimum Recall | | No | | | No | | No | No | | No | No | |
| Maximum Recall | | No | | | No | | No | No | | No | No | |
| Pedestrian Recall | | No | | | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | C | C | L | C | L | C |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 51 | 51 | 51 | 51 | 51 | 51 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 6.00 | 4.00 | 6.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 4.00 | 2.00 | 4.00 |
| g_i, Effective Green Time [s] | 10 | 1 | 0 | 20 | 3 | 22 |
| g / C, Green / Cycle | 0.19 | 0.01 | 0.00 | 0.39 | 0.05 | 0.44 |
| (v / s)_i Volume / Saturation Flow Rate | 0.16 | 0.01 | 0.00 | 0.32 | 0.04 | 0.17 |
| s, saturation flow rate [veh/h] | 1656 | 1607 | 1752 | 1746 | 1752 | 1840 |
| c, Capacity [veh/h] | 318 | 21 | 1 | 677 | 96 | 813 |
| d1, Uniform Delay [s] | 19.77 | 25.18 | 25.51 | 14.12 | 23.83 | 9.58 |
| k, delay calibration | 0.04 | 0.04 | 0.04 | 0.15 | 0.04 | 0.15 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 2.01 | 46.31 | 254.71 | 3.83 | 5.15 | 0.42 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| X, volume / capacity | 0.82 | 0.96 | 1.00 | 0.83 | 0.78 | 0.38 |
|---|---|---|---|---|---|---|
| d, Delay for Lane Group [s/veh] | 21.79 | 71.49 | 280.22 | 17.95 | 28.98 | 10.00 |
| Lane Group LOS | C | E | F | B | C | A |
| Critical Lane Group | Yes | Yes | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 2.54 | 0.47 | 0.08 | 4.95 | 0.89 | 1.63 |
| 50th-Percentile Queue Length [ft/ln] | 63.61 | 11.85 | 2.03 | 123.71 | 22.19 | 40.86 |
| 95th-Percentile Queue Length [veh/ln] | 4.58 | 0.85 | 0.15 | 8.60 | 1.60 | 2.94 |
| 95th-Percentile Queue Length [ft/ln] | 114.50 | 21.34 | 3.66 | 214.92 | 39.95 | 73.55 |

**Movement, Approach, & Intersection Results**

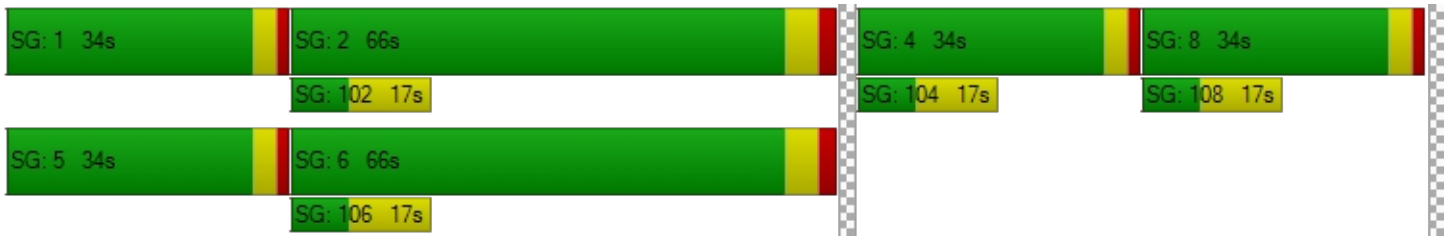
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 21.79 | 21.79 | 21.79 | 71.49 | 71.49 | 71.49 | 280.22 | 17.95 | 17.95 | 28.98 | 10.00 | 10.00 |
| Movement LOS | C | C | C | E | E | E | F | B | B | C | A | A |
| d_A, Approach Delay [s/veh] | 21.79 | | | 71.49 | | | 18.41 | | | 13.69 | | |
| Approach LOS | C | | | E | | | B | | | B | | |
| d_I, Intersection Delay [s/veh] | 18.51 | | | | | | | | | | | |
| Intersection LOS | B | | | | | | | | | | | |
| Intersection V/C | 0.535 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 34.67 | 34.67 | 34.67 | 34.67 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.109 | 1.733 | 2.437 | 2.443 |
| Crosswalk LOS | B | A | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 667 | 667 | 1333 | 1333 |
| d_b, Bicycle Delay [s] | 20.00 | 20.00 | 5.00 | 5.00 |
| l_b,int, Bicycle LOS Score for Intersection | 1.990 | 1.593 | 2.489 | 2.197 |
| Bicycle LOS | A | A | B | B |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 4 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Sellers Rd/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 13.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.579 |

**Intersection Setup**

| Name | Sellers Rd | | | Sellers Rd | | | Delta Rd | | | Delta Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 40.00 | | | 40.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Sellers Rd | | | Sellers Rd | | | Delta Rd | | | Delta Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 88 | 203 | 51 | 13 | 149 | 22 | 34 | 113 | 52 | 43 | 85 | 21 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 4 | 7 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 88 | 203 | 51 | 13 | 149 | 26 | 41 | 113 | 52 | 43 | 85 | 21 |
| Peak Hour Factor | 0.8900 | 0.8900 | 0.8900 | 0.9200 | 0.9200 | 0.9200 | 0.9800 | 0.9800 | 0.9800 | 0.8500 | 0.8500 | 0.8500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 25 | 57 | 14 | 4 | 40 | 7 | 10 | 29 | 13 | 13 | 25 | 6 |
| Total Analysis Volume [veh/h] | 99 | 228 | 57 | 14 | 162 | 28 | 42 | 115 | 53 | 51 | 100 | 25 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | |
|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 663 | 631 | 617 | 601 |
| Degree of Utilization, x | 0.58 | 0.32 | 0.34 | 0.29 |

**Movement, Approach, & Intersection Results**

| | | | | |
|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 3.73 | 1.40 | 1.50 | 1.21 |
| 95th-Percentile Queue Length [ft] | 93.21 | 34.90 | 37.61 | 30.36 |
| Approach Delay [s/veh] | 15.62 | 11.40 | 11.82 | 11.45 |
| Approach LOS | C | B | B | B |
| Intersection Delay [s/veh] | 13.16 | | | |
| Intersection LOS | B | | | |

**Intersection Level Of Service Report**
**Intersection 4: Sellers Rd/Project Access 1**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.022 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Rd | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Rd | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 194 | 164 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 3 | 13 | 21 | 21 | 13 | 2 |
| Total Hourly Volume [veh/h] | 3 | 207 | 185 | 21 | 13 | 2 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 52 | 46 | 5 | 3 | 1 |
| Total Analysis Volume [veh/h] | 3 | 207 | 185 | 21 | 13 | 2 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 7.64 | 0.00 | 0.00 | 0.00 | 11.17 | 9.40 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.01 | 0.01 | 0.00 | 0.00 | 0.07 | 0.07 |
| 95th-Percentile Queue Length [ft/ln] | 0.17 | 0.17 | 0.00 | 0.00 | 1.85 | 1.85 |
| d_A, Approach Delay [s/veh] | 0.11 | | 0.00 | | 10.93 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.43 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 5: Sellers Rd/Project Access 2**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.021 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Rd | | Project Access 2 | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Rd | | Project Access 2 | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 194 | 164 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 4 | 3 | 2 | 21 | 13 | 2 |
| Total Hourly Volume [veh/h] | 4 | 197 | 166 | 21 | 13 | 2 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 1 | 49 | 42 | 5 | 3 | 1 |
| Total Analysis Volume [veh/h] | 4 | 197 | 166 | 21 | 13 | 2 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 |
| d_M, Delay for Movement [s/veh] | 7.60 | 0.00 | 0.00 | 0.00 | 10.95 | 9.29 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.01 | 0.01 | 0.00 | 0.00 | 0.07 | 0.07 |
| 95th-Percentile Queue Length [ft/ln] | 0.22 | 0.22 | 0.00 | 0.00 | 1.79 | 1.79 |
| d_A, Approach Delay [s/veh] | 0.15 | | 0.00 | | 10.73 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.47 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 6: Main St/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 33.1 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.402 |

**Intersection Setup**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 305.00 | 100.00 | 100.00 | 215.00 | 100.00 | 215.00 | 160.00 | 100.00 | 100.00 | 300.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 480.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | | 40.00 | | | 40.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 136 | 370 | 94 | 95 | 326 | 129 | 165 | 162 | 123 | 58 | 95 | 57 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 19 | 32 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 136 | 370 | 94 | 95 | 326 | 148 | 197 | 162 | 123 | 58 | 95 | 57 |
| Peak Hour Factor | 0.8900 | 0.8900 | 0.8900 | 0.8800 | 0.8800 | 0.8800 | 0.9600 | 0.9600 | 0.9600 | 0.8600 | 0.8600 | 0.8600 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 38 | 104 | 26 | 27 | 93 | 42 | 51 | 42 | 32 | 17 | 28 | 17 |
| Total Analysis Volume [veh/h] | 153 | 416 | 106 | 108 | 370 | 168 | 205 | 169 | 128 | 67 | 110 | 66 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 1 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 1 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 1 | | | 0 | | | 0 | | | 1 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 1 | | | 0 | | | 0 | | | 1 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 1 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 115 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fully actuated |
| Offset [s] | 108.0 |
| Offset Reference | Lagging Force-Off |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 0 | 1 | 6 | 0 | 7 | 4 | 0 | 3 | 8 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 6 | 10 | 0 | 6 | 10 | 0 | 6 | 6 | 0 | 6 | 6 | 0 |
| Maximum Green [s] | 20 | 40 | 0 | 16 | 40 | 0 | 16 | 20 | 0 | 16 | 20 | 0 |
| Amber [s] | 3.0 | 4.5 | 0.0 | 3.0 | 4.5 | 0.0 | 3.0 | 4.4 | 0.0 | 3.0 | 4.1 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 15 | 38 | 0 | 15 | 38 | 0 | 18 | 40 | 0 | 22 | 44 | 0 |
| Vehicle Extension [s] | 2.0 | 3.0 | 0.0 | 2.0 | 3.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 18 | 0 | 0 | 24 | 0 | 0 | 26 | 0 | 0 | 30 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 3.5 | 0.0 | 2.0 | 3.5 | 0.0 | 2.0 | 3.4 | 0.0 | 2.0 | 3.1 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | Yes | | No | Yes | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | C | L | C | R | L | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 | 115 |
| L, Total Lost Time per Cycle [s] | 4.00 | 5.50 | 5.50 | 4.00 | 5.50 | 5.50 | 4.00 | 5.40 | 5.40 | 4.00 | 5.10 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 3.50 | 3.50 | 2.00 | 3.50 | 3.50 | 2.00 | 3.40 | 3.40 | 2.00 | 3.10 |
| g_i, Effective Green Time [s] | 11 | 65 | 65 | 9 | 63 | 63 | 9 | 17 | 17 | 6 | 14 |
| g / C, Green / Cycle | 0.10 | 0.57 | 0.57 | 0.08 | 0.55 | 0.55 | 0.08 | 0.14 | 0.14 | 0.05 | 0.12 |
| (v / s)_i Volume / Saturation Flow Rate | 0.09 | 0.15 | 0.15 | 0.06 | 0.15 | 0.15 | 0.06 | 0.09 | 0.08 | 0.04 | 0.10 |
| s, saturation flow rate [veh/h] | 1767 | 1855 | 1726 | 1767 | 1855 | 1662 | 3431 | 1855 | 1573 | 1767 | 1730 |
| c, Capacity [veh/h] | 170 | 1052 | 978 | 134 | 1013 | 908 | 265 | 267 | 226 | 87 | 205 |
| d1, Uniform Delay [s] | 51.41 | 12.62 | 12.64 | 52.33 | 13.96 | 13.99 | 52.06 | 46.36 | 45.86 | 54.03 | 49.75 |
| k, delay calibration | 0.04 | 0.50 | 0.50 | 0.04 | 0.50 | 0.50 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 6.64 | 0.59 | 0.64 | 4.35 | 0.68 | 0.78 | 1.81 | 0.93 | 0.83 | 5.30 | 4.04 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.90 | 0.26 | 0.26 | 0.81 | 0.28 | 0.28 | 0.77 | 0.63 | 0.57 | 0.77 | 0.86 |
| d, Delay for Lane Group [s/veh] | 58.05 | 13.21 | 13.28 | 56.68 | 14.65 | 14.77 | 53.87 | 47.29 | 46.69 | 59.32 | 53.79 |
| Lane Group LOS | E | B | B | E | B | B | D | D | D | E | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | Yes | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 4.59 | 3.48 | 3.28 | 3.17 | 3.90 | 3.56 | 2.92 | 4.53 | 3.40 | 2.03 | 5.14 |
| 50th-Percentile Queue Length [ft/ln] | 114.80 | 86.95 | 81.88 | 79.37 | 97.50 | 89.12 | 72.92 | 113.32 | 84.91 | 50.68 | 128.47 |
| 95th-Percentile Queue Length [veh/ln] | 8.11 | 6.26 | 5.90 | 5.71 | 7.02 | 6.42 | 5.25 | 8.02 | 6.11 | 3.65 | 8.86 |
| 95th-Percentile Queue Length [ft/ln] | 202.66 | 156.50 | 147.39 | 142.87 | 175.50 | 160.41 | 131.25 | 200.60 | 152.83 | 91.22 | 221.41 |

**Movement, Approach, & Intersection Results**

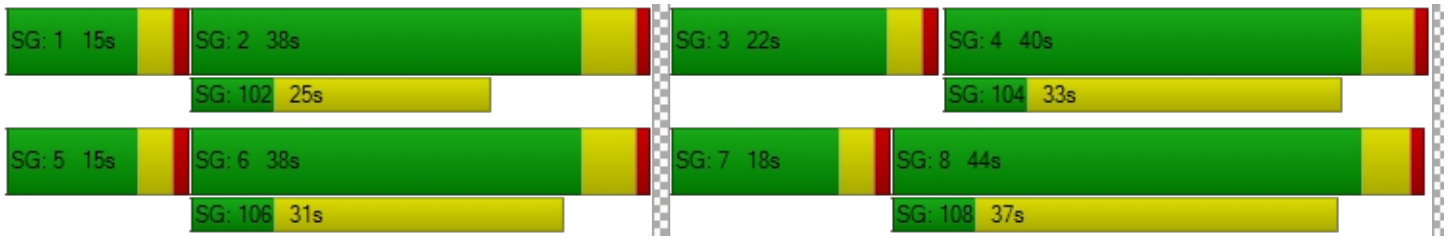
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 58.05 | 13.23 | 13.28 | 56.68 | 14.68 | 14.77 | 53.87 | 47.29 | 46.69 | 59.32 | 53.79 | 53.79 |
| Movement LOS | E | B | B | E | B | B | D | D | D | E | D | D |
| d_A, Approach Delay [s/veh] | 23.40 | | | 21.72 | | | 49.82 | | | 55.32 | | |
| Approach LOS | C | | | C | | | D | | | E | | |
| d_I, Intersection Delay [s/veh] | 33.05 | | | | | | | | | | | |
| Intersection LOS | C | | | | | | | | | | | |
| Intersection V/C | 0.402 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 7881.94 | 0.00 | 0.00 | 3329.98 |
| d_p, Pedestrian Delay [s] | 47.03 | 47.03 | 47.03 | 47.03 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.634 | 2.658 | 2.667 | 2.189 |
| Crosswalk LOS | B | B | B | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 565 | 565 | 602 | 677 |
| d_b, Bicycle Delay [s] | 29.59 | 29.59 | 28.11 | 25.19 |
| l_b,int, Bicycle LOS Score for Intersection | 2.116 | 2.093 | 2.388 | 1.961 |
| Bicycle LOS | B | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main St/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 58.1 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | F |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.407 |

**Intersection Setup**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 95.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | 40.00 | | 40.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | No | |

**Volumes**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 562 | 98 | 112 | 445 | 48 | 134 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 7 | 0 | 0 | 4 | 0 |
| Total Hourly Volume [veh/h] | 562 | 105 | 112 | 445 | 52 | 134 |
| Peak Hour Factor | 0.9400 | 0.9400 | 0.9100 | 0.9100 | 0.9500 | 0.9500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 149 | 28 | 31 | 122 | 14 | 35 |
| Total Analysis Volume [veh/h] | 598 | 112 | 123 | 489 | 55 | 141 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.01 | 0.00 | 0.14 | 0.00 | 0.41 | 0.30 |
| d_M, Delay for Movement [s/veh] | 0.00 | 0.00 | 9.71 | 0.00 | 58.12 | 39.20 |
| Movement LOS | A | A | A | A | F | E |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.48 | 0.00 | 4.92 | 4.92 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 12.00 | 0.00 | 122.94 | 122.94 |
| d_A, Approach Delay [s/veh] | 0.00 | | 1.95 | | 44.51 | |
| Approach LOS | A | | A | | E | |
| d_I, Intersection Delay [s/veh] | 6.53 | | | | | |
| Intersection LOS | F | | | | | |

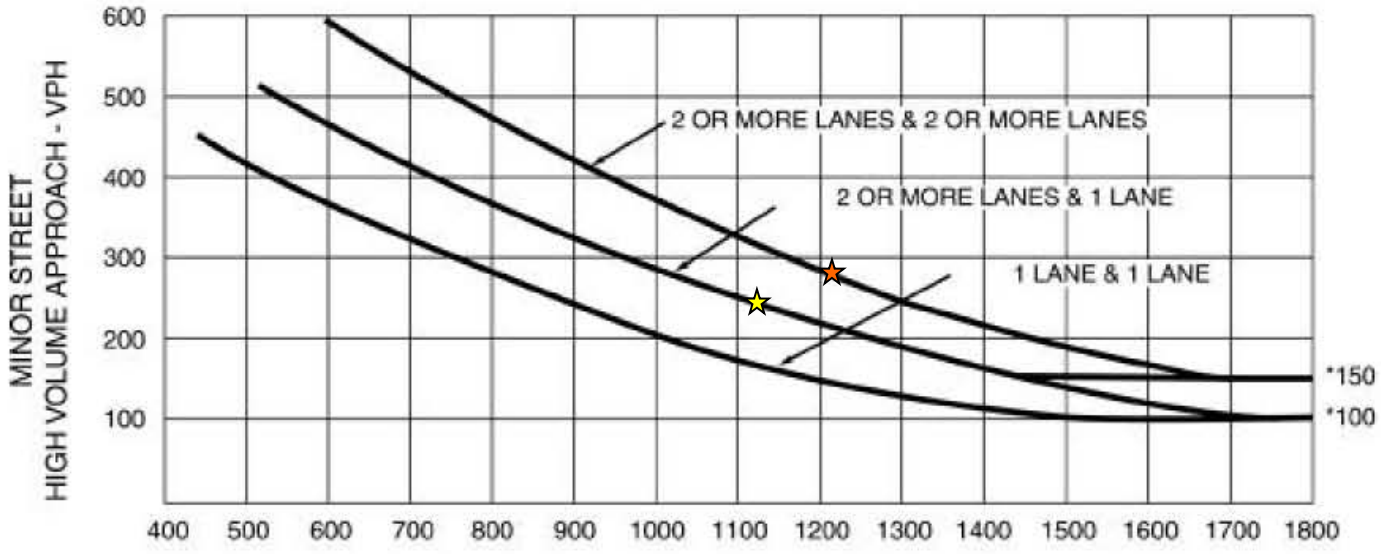
# Appendix C

## Existing plus Project Conditions Mitigated LOS Reports

# Peak Hour Warrant (Urban Areas)

Intersection #7: Main St. & Delta Rd., Oakley, CA
Scenario: Existing Conditions

***Figure 4C-3. Warrant 3, Peak Hour***




*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

***Minor Street Volume = 241 (182) VPH***

***Major Street Volume = 1.134 (1.217) VPH***

☆ ***AM Peak Hour***

☆ ***PM Peak Hour***

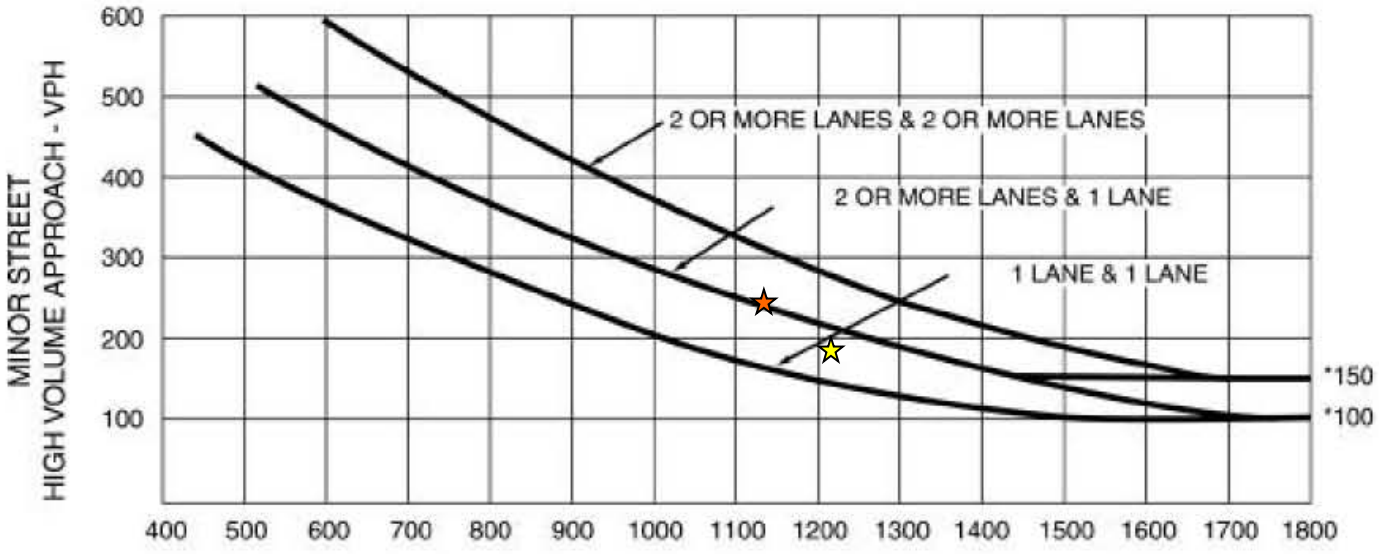
***A signal is WARRANTED in the a.m. Peak Hour***
***A signal is WARRANTED in the p.m. Peak Hour***

***Source: CA MUTCD 2014, Chapter 4C – Traffic Control Signal Needs Studies, Part 4 - Highway Traffic Signals, Figure 4C-3***

# Peak Hour Warrant (Urban Areas)

Intersection #7: Main St. & Delta Rd., Oakley, CA
Scenario: Existing plus Project Conditions

***Figure 4C-3. Warrant 3, Peak Hour***




*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

***Minor Street Volume = 248 (186) VPH***

***Major Street Volume = 1.137 (1.224) VPH***

★ ***AM Peak Hour***

★ ***PM Peak Hour***

***A signal is WARRANTED in the a.m. Peak Hour***
***A signal is WARRANTED in the p.m. Peak Hour***

***Source: CA MUTCD 2014, Chapter 4C – Traffic Control Signal Needs Studies, Part 4 - Highway Traffic Signals, Figure 4C-3***

**Intersection Level Of Service Report**
**Intersection 7: Main St/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 17.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.631 |

**Intersection Setup**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 95.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | 40.00 | | 40.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | No | | No | | No | |

**Volumes**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 348 | 66 | 151 | 569 | 51 | 190 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 3 | 0 | 0 | 7 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 348 | 69 | 151 | 569 | 58 | 190 |
| Peak Hour Factor | 0.9000 | 0.9000 | 0.7800 | 0.7800 | 0.8600 | 0.8600 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 97 | 19 | 48 | 182 | 17 | 55 |
| Total Analysis Volume [veh/h] | 387 | 77 | 194 | 729 | 67 | 221 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Free Running |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Permissive | Permissive | Protected | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 6 | 0 | 5 | 2 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | - | - | Lead | - | Lead | - |
| Minimum Green [s] | 5 | 0 | 5 | 5 | 5 | 0 |
| Maximum Green [s] | 30 | 0 | 30 | 60 | 30 | 0 |
| Amber [s] | 4.4 | 0.0 | 3.0 | 4.4 | 4.4 | 0.0 |
| All red [s] | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 0 | 0 | 0 | 0 | 0 | 0 |
| Vehicle Extension [s] | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 5 | 0 | 0 | 5 | 5 | 0 |
| Pedestrian Clearance [s] | 10 | 0 | 0 | 10 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | No | | | No | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 3.4 | 0.0 | 2.0 | 3.4 | 3.4 | 0.0 |
| Minimum Recall | No | | No | No | No | |
| Maximum Recall | No | | No | No | No | |
| Pedestrian Recall | No | | No | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | C | L | C | C |
|---|---|---|---|---|
| C, Cycle Length [s] | 52 | 52 | 52 | 52 |
| L, Total Lost Time per Cycle [s] | 5.40 | 4.00 | 5.40 | 5.40 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 3.40 | 2.00 | 3.40 | 3.40 |
| g_i, Effective Green Time [s] | 17 | 8 | 29 | 12 |
| g / C, Green / Cycle | 0.33 | 0.15 | 0.56 | 0.24 |
| (v / s)_i Volume / Saturation Flow Rate | 0.28 | 0.12 | 0.43 | 0.20 |
| s, saturation flow rate [veh/h] | 1631 | 1599 | 1679 | 1464 |
| c, Capacity [veh/h] | 533 | 246 | 935 | 346 |
| d1, Uniform Delay [s] | 16.57 | 21.29 | 9.06 | 18.98 |
| k, delay calibration | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 4.58 | 5.54 | 1.45 | 5.23 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | |
|---|---|---|---|---|
| X, volume / capacity | 0.87 | 0.79 | 0.78 | 0.83 |
| d, Delay for Lane Group [s/veh] | 21.15 | 26.83 | 10.51 | 24.20 |
| Lane Group LOS | C | C | B | C |
| Critical Lane Group | No | No | Yes | Yes |
| 50th-Percentile Queue Length [veh/ln] | 4.84 | 2.35 | 4.35 | 3.27 |
| 50th-Percentile Queue Length [ft/ln] | 121.06 | 58.71 | 108.72 | 81.84 |
| 95th-Percentile Queue Length [veh/ln] | 8.45 | 4.23 | 7.77 | 5.89 |
| 95th-Percentile Queue Length [ft/ln] | 211.28 | 105.69 | 194.22 | 147.30 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 21.15 | 21.15 | 26.83 | 10.51 | 24.20 | 24.20 |
| Movement LOS | C | C | C | B | C | C |
| d_A, Approach Delay [s/veh] | 21.15 | | 13.94 | | 24.20 | |
| Approach LOS | C | | B | | C | |
| d_I, Intersection Delay [s/veh] | 17.70 | | | | | |
| Intersection LOS | B | | | | | |
| Intersection V/C | 0.631 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 0.0 | 0.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 0.00 | 0.00 |
| l_p,int, Pedestrian LOS Score for Intersection | 0.000 | 0.000 | 0.000 |
| Crosswalk LOS | F | F | F |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 667 | 1333 | 667 |
| d_b, Bicycle Delay [s] | 20.00 | 5.00 | 20.00 |
| l_b,int, Bicycle LOS Score for Intersection | 2.325 | 3.083 | 2.035 |
| Bicycle LOS | B | C | B |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main St/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 20.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.645 |

**Intersection Setup**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 1 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 95.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | 40.00 | | 40.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | No | | No | | No | |

**Volumes**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 562 | 98 | 112 | 445 | 48 | 134 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 7 | 0 | 0 | 4 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 562 | 105 | 112 | 445 | 52 | 134 |
| Peak Hour Factor | 0.9400 | 0.9400 | 0.9100 | 0.9100 | 0.9500 | 0.9500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 149 | 28 | 31 | 122 | 14 | 35 |
| Total Analysis Volume [veh/h] | 598 | 112 | 123 | 489 | 55 | 141 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Free Running |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Permissive | Permissive | Protected | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 6 | 0 | 5 | 2 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | - | - | Lead | - | Lead | - |
| Minimum Green [s] | 5 | 0 | 5 | 5 | 5 | 0 |
| Maximum Green [s] | 30 | 0 | 30 | 60 | 30 | 0 |
| Amber [s] | 4.4 | 0.0 | 3.0 | 4.4 | 4.4 | 0.0 |
| All red [s] | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 0 | 0 | 0 | 0 | 0 | 0 |
| Vehicle Extension [s] | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 5 | 0 | 0 | 5 | 5 | 0 |
| Pedestrian Clearance [s] | 10 | 0 | 0 | 10 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | No | | | No | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 3.4 | 0.0 | 2.0 | 3.4 | 3.4 | 0.0 |
| Minimum Recall | No | | No | No | No | |
| Maximum Recall | No | | No | No | No | |
| Pedestrian Recall | No | | No | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | C | L | C | C |
|---|---|---|---|---|
| C, Cycle Length [s] | 55 | 55 | 55 | 55 |
| L, Total Lost Time per Cycle [s] | 5.40 | 4.00 | 5.40 | 5.40 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 3.40 | 2.00 | 3.40 | 3.40 |
| g_i, Effective Green Time [s] | 26 | 5 | 35 | 9 |
| g / C, Green / Cycle | 0.47 | 0.10 | 0.64 | 0.17 |
| (v / s)_i Volume / Saturation Flow Rate | 0.43 | 0.08 | 0.29 | 0.13 |
| s, saturation flow rate [veh/h] | 1633 | 1599 | 1679 | 1471 |
| c, Capacity [veh/h] | 764 | 158 | 1073 | 243 |
| d1, Uniform Delay [s] | 13.83 | 24.30 | 5.07 | 22.20 |
| k, delay calibration | 0.28 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 12.40 | 7.98 | 0.30 | 6.21 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | |
|---|---|---|---|---|
| X, volume / capacity | 0.93 | 0.78 | 0.46 | 0.81 |
| d, Delay for Lane Group [s/veh] | 26.23 | 32.28 | 5.37 | 28.41 |
| Lane Group LOS | C | C | A | C |
| Critical Lane Group | Yes | Yes | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 8.67 | 1.74 | 1.60 | 2.55 |
| 50th-Percentile Queue Length [ft/ln] | 216.84 | 43.60 | 40.01 | 63.87 |
| 95th-Percentile Queue Length [veh/ln] | 13.50 | 3.14 | 2.88 | 4.60 |
| 95th-Percentile Queue Length [ft/ln] | 337.58 | 78.49 | 72.01 | 114.96 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 26.23 | 26.23 | 32.28 | 5.37 | 28.41 | 28.41 |
| Movement LOS | C | C | C | A | C | C |
| d_A, Approach Delay [s/veh] | 26.23 | | 10.78 | | 28.41 | |
| Approach LOS | C | | B | | C | |
| d_I, Intersection Delay [s/veh] | 20.28 | | | | | |
| Intersection LOS | C | | | | | |
| Intersection V/C | 0.645 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 0.0 | 0.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 0.00 | 0.00 |
| l_p,int, Pedestrian LOS Score for Intersection | 0.000 | 0.000 | 0.000 |
| Crosswalk LOS | F | F | F |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 667 | 1333 | 667 |
| d_b, Bicycle Delay [s] | 20.00 | 5.00 | 20.00 |
| l_b,int, Bicycle LOS Score for Intersection | 2.731 | 2.569 | 1.883 |
| Bicycle LOS | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



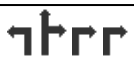
# Appendix D

## Background Conditions LOS Reports

**Intersection Level Of Service Report**
**Intersection 1: Sellers Rd/E Cypress Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 43.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.742 |

**Intersection Setup**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pock | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 150.00 | 100.00 | 150.00 | 110.00 | 100.00 | 100.00 | 185.00 | 100.00 | 185.00 | 250.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocke | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 45.00 | | | 50.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h | 96 | 5 | 47 | 1 | 2 | 8 | 11 | 289 | 127 | 295 | 301 | 1 |
| Base Volume Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percenta | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh | 69 | 52 | 167 | 7 | 205 | 85 | 21 | 152 | 32 | 214 | 640 | 5 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment | 9 | 10 | 27 | 5 | 8 | 28 | 29 | 21 | 8 | 79 | 46 | 6 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/ | 174 | 67 | 241 | 13 | 215 | 121 | 61 | 462 | 167 | 588 | 987 | 12 |
| Peak Hour Factor | 0.7700 | 0.7700 | 0.7700 | 0.6900 | 0.6900 | 0.6900 | 0.8100 | 0.8100 | 0.8100 | 0.7000 | 0.7000 | 0.7000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [ | 56 | 22 | 78 | 5 | 78 | 44 | 19 | 143 | 52 | 210 | 353 | 4 |
| Total Analysis Volume [ve | 226 | 87 | 313 | 19 | 312 | 175 | 75 | 570 | 206 | 840 | 1410 | 17 |
| Presence of On-Street Pa | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestri | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestria | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/ | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 80 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Split | Split | Split | Split | Split | Split | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 0 | 8 | 0 | 0 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | - | - | - | - | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 0 | 5 | 0 | 0 | 5 | 0 | 5 | 5 | 0 | 5 | 5 | 0 |
| Maximum Green [s] | 0 | 30 | 0 | 0 | 30 | 0 | 30 | 60 | 0 | 30 | 60 | 0 |
| Amber [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 4.0 | 0.0 | 3.0 | 4.0 | 0.0 |
| All red [s] | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 2.0 | 0.0 | 1.0 | 2.0 | 0.0 |
| Split [s] | 0 | 21 | 0 | 0 | 21 | 0 | 11 | 24 | 0 | 14 | 27 | 0 |
| Vehicle Extension [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Minimum Recall | | No | | | No | | No | No | | No | No | |
| Maximum Recall | | No | | | No | | No | No | | No | No | |
| Pedestrian Recall | | No | | | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | C | R | L | C | C | L | C | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 6.00 | 6.00 | 4.00 | 6.00 | 6.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 4.00 | 4.00 | 2.00 | 4.00 | 4.00 |
| g_i, Effective Green Time [s] | 17 | 17 | 17 | 22 | 22 | 6 | 23 | 23 | 29 | 46 | 46 |
| g / C, Green / Cycle | 0.16 | 0.16 | 0.16 | 0.20 | 0.20 | 0.06 | 0.21 | 0.21 | 0.26 | 0.42 | 0.42 |
| (v / s)_i Volume / Saturation Flow Rate | 0.13 | 0.09 | 0.09 | 0.18 | 0.06 | 0.04 | 0.15 | 0.15 | 0.25 | 0.39 | 0.39 |
| s, saturation flow rate [veh/h] | 1752 | 1711 | 2768 | 1835 | 2768 | 1752 | 3503 | 1604 | 3403 | 1840 | 1832 |
| c, Capacity [veh/h] | 273 | 267 | 432 | 371 | 560 | 97 | 746 | 342 | 901 | 777 | 774 |
| d1, Uniform Delay [s] | 44.95 | 42.98 | 43.00 | 42.67 | 37.33 | 51.23 | 40.10 | 40.26 | 39.45 | 29.98 | 30.06 |
| k, delay calibration | 0.11 | 0.11 | 0.11 | 0.20 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.24 | 0.24 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 6.26 | 1.91 | 1.20 | 12.74 | 0.31 | 11.98 | 1.25 | 2.92 | 5.08 | 9.81 | 10.27 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.83 | 0.57 | 0.57 | 0.89 | 0.31 | 0.77 | 0.71 | 0.72 | 0.93 | 0.92 | 0.92 |
| d, Delay for Lane Group [s/veh] | 51.21 | 44.89 | 44.21 | 55.41 | 37.65 | 63.20 | 41.35 | 43.18 | 44.53 | 39.79 | 40.33 |
| Lane Group LOS | D | D | D | E | D | E | D | D | D | D | D |
| Critical Lane Group | Yes | No | No | Yes | No | Yes | No | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 6.17 | 3.81 | 3.06 | 9.60 | 1.94 | 2.30 | 6.49 | 6.26 | 11.02 | 18.23 | 18.36 |
| 50th-Percentile Queue Length [ft/ln] | 154.21 | 95.15 | 76.46 | 240.11 | 48.55 | 57.53 | 162.23 | 156.46 | 275.53 | 455.81 | 459.12 |
| 95th-Percentile Queue Length [veh/ln] | 10.24 | 6.85 | 5.51 | 14.69 | 3.50 | 4.14 | 10.67 | 10.36 | 16.47 | 25.24 | 25.39 |
| 95th-Percentile Queue Length [ft/ln] | 256.04 | 171.26 | 137.63 | 367.18 | 87.39 | 103.55 | 266.67 | 259.03 | 411.64 | 630.88 | 634.82 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 51.21 | 44.89 | 44.33 | 55.41 | 55.41 | 37.65 | 63.20 | 41.49 | 43.18 | 44.53 | 40.06 | 40.33 |
| Movement LOS | D | D | D | E | E | D | E | D | D | D | D | D |
| d_A, Approach Delay [s/veh] | 46.90 | | | 49.27 | | | 43.81 | | | 41.72 | | |
| Approach LOS | D | | | D | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 43.80 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.742 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 29.76 | 29.76 | 29.76 | 29.76 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.984 | 2.516 | 3.095 | 3.323 |
| Crosswalk LOS | C | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 425 | 425 | 450 | 525 |
| d_b, Bicycle Delay [s] | 24.81 | 24.81 | 24.03 | 21.76 |
| l_b,int, Bicycle LOS Score for Intersection | 2.593 | 2.395 | 2.028 | 3.430 |
| Bicycle LOS | B | B | B | C |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 4 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 2: Sellers Ave/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 48.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.363 |

**Intersection Setup**

| Name | Sellers Ave | | Sellers Ave | | Laurel Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration | | | | | | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pock | 1 | 0 | 0 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocke | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 35.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | Yes | | Yes | | Yes | |

**Volumes**

| Name | Sellers Ave | | Sellers Ave | | Laurel Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h | 0 | 148 | 224 | 200 | 50 | 50 |
| Base Volume Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percenta | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh | 0 | 48 | 48 | 401 | 218 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment | 0 | 0 | 1 | 78 | 27 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volum | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/ | 0 | 196 | 273 | 679 | 295 | 50 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [ | 0 | 49 | 68 | 170 | 74 | 13 |
| Total Analysis Volume [ve | 0 | 196 | 273 | 679 | 295 | 50 |
| Presence of On-Street Pa | No | No | No | No | No | No |
| On-Street Parking Maneu | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [ | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestri | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestria | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/ | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 100 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fixed time |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protected | Permissive | Permissive | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 6 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | Lead | - | - | - | Lead | - |
| Minimum Green [s] | 5 | 5 | 5 | 0 | 5 | 0 |
| Maximum Green [s] | 30 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 35 | 31 | 65 | 0 | 69 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 5 | 5 | 0 | 5 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 10 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | No | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | No | | No | |
| Maximum Recall | No | No | No | | No | |
| Pedestrian Recall | No | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | R | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 169 | 169 | 169 | 169 | 169 | 169 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 31 | 27 | 61 | 61 | 65 | 65 |
| g / C, Green / Cycle | 0.18 | 0.16 | 0.36 | 0.36 | 0.38 | 0.38 |
| (v / s)_i Volume / Saturation Flow Rate | 0.00 | 0.06 | 0.16 | 0.27 | 0.09 | 0.03 |
| s, saturation flow rate [veh/h] | 1603 | 3204 | 1683 | 2532 | 3113 | 1431 |
| c, Capacity [veh/h] | 294 | 512 | 607 | 914 | 1197 | 550 |
| d1, Uniform Delay [s] | 0.00 | 63.54 | 41.19 | 47.15 | 35.35 | 33.16 |
| k, delay calibration | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.00 | 2.16 | 2.40 | 5.44 | 0.49 | 0.33 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.00 | 0.38 | 0.45 | 0.74 | 0.25 | 0.09 |
| d, Delay for Lane Group [s/veh] | 0.00 | 65.71 | 43.59 | 52.59 | 35.84 | 33.49 |
| Lane Group LOS | A | E | D | D | D | C |
| Critical Lane Group | No | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.00 | 3.88 | 8.94 | 12.85 | 4.28 | 1.39 |
| 50th-Percentile Queue Length [ft/ln] | 0.00 | 96.88 | 223.60 | 321.19 | 107.05 | 34.64 |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 6.98 | 13.85 | 18.73 | 7.68 | 2.49 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 174.39 | 346.22 | 468.15 | 191.89 | 62.35 |

**Movement, Approach, & Intersection Results**

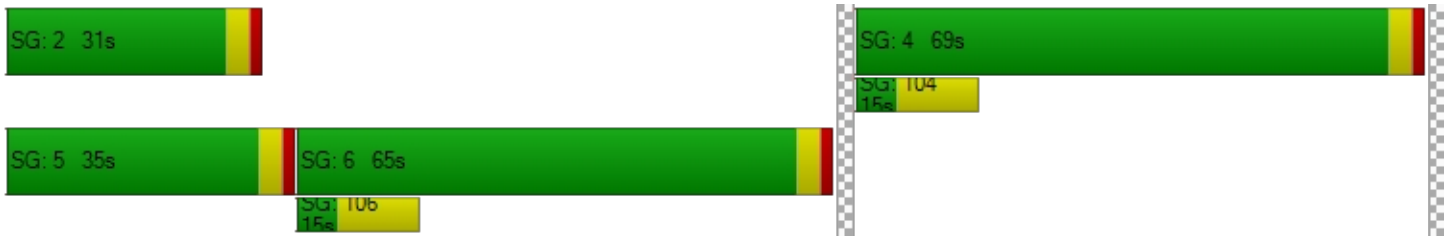
| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 65.71 | 43.59 | 52.59 | 35.84 | 33.49 |
| Movement LOS | A | E | D | D | D | C |
| d_A, Approach Delay [s/veh] | 65.71 | | 50.01 | | 35.50 | |
| Approach LOS | E | | D | | D | |
| d_I, Intersection Delay [s/veh] | 48.72 | | | | | |
| Intersection LOS | D | | | | | |
| Intersection V/C | 0.363 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 9.0 | 9.0 | 9.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 41.41 | 41.41 | 41.41 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.349 | 2.775 | 2.539 |
| Crosswalk LOS | B | C | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 540 | 1220 | 1300 |
| d_b, Bicycle Delay [s] | 26.65 | 7.61 | 6.13 |
| l_b,int, Bicycle LOS Score for Intersection | 1.721 | 3.130 | 1.560 |
| Bicycle LOS | A | C | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Sellers Rd/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 10.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.333 |

**Intersection Setup**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pock | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocke | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 40.00 | | | 40.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h | 33 | 86 | 36 | 3 | 142 | 15 | 13 | 63 | 41 | 38 | 63 | 3 |
| Base Volume Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percenta | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh | 1 | 1 | 49 | 0 | 8 | 37 | 12 | 0 | 3 | 120 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/ | 34 | 88 | 85 | 3 | 152 | 52 | 25 | 63 | 44 | 158 | 63 | 3 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [ | 9 | 22 | 21 | 1 | 38 | 13 | 6 | 16 | 11 | 40 | 16 | 1 |
| Total Analysis Volume [ve | 34 | 88 | 85 | 3 | 152 | 52 | 25 | 63 | 44 | 158 | 63 | 3 |
| Pedestrian Volume [ped/h | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | |
|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 718 | 710 | 689 | 673 |
| Degree of Utilization, x | 0.29 | 0.29 | 0.19 | 0.33 |

**Movement, Approach, & Intersection Results**

| | | | | |
|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 1.19 | 1.21 | 0.70 | 1.46 |
| 95th-Percentile Queue Length [ft] | 29.83 | 30.33 | 17.58 | 36.52 |
| Approach Delay [s/veh] | 10.03 | 10.16 | 9.45 | 11.01 |
| Approach LOS | B | B | A | B |
| Intersection Delay [s/veh] | 10.25 | | | |
| Intersection LOS | B | | | |

**Intersection Level Of Service Report**
**Intersection 6: Main St/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 52.6 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.794 |

**Intersection Setup**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pock | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 305.00 | 100.00 | 1150.00 | 215.00 | 100.00 | 215.00 | 160.00 | 100.00 | 160.00 | 240.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocke | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 49.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | | 40.00 | | | 40.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h | 107 | 298 | 141 | 61 | 465 | 14 | 126 | 106 | 101 | 176 | 362 | 104 |
| Base Volume Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percenta | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh | 30 | 39 | 6 | 9 | 29 | 295 | 18 | 222 | 20 | 21 | 360 | 64 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment | 36 | 4 | 6 | 1 | 2 | 0 | 2 | 33 | 0 | 17 | 64 | 7 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/ | 173 | 341 | 153 | 71 | 496 | 309 | 146 | 361 | 121 | 214 | 786 | 175 |
| Peak Hour Factor | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.9000 | 0.9000 | 0.9000 | 0.6700 | 0.6700 | 0.6700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [ | 54 | 107 | 48 | 22 | 155 | 97 | 41 | 100 | 34 | 80 | 293 | 65 |
| Total Analysis Volume [ve | 216 | 426 | 191 | 89 | 620 | 386 | 162 | 401 | 134 | 319 | 1173 | 261 |
| Presence of On-Street Pa | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestri | 2 | | | 0 | | | 2 | | | 0 | | |
| v_di, Inbound Pedestrian | 2 | | | 0 | | | 2 | | | 0 | | |
| v_co, Outbound Pedestria | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/ | 0 | | | 1 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 140 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fully actuated |
| Offset [s] | 108.0 |
| Offset Reference | Lagging Force-Off |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 0 | 1 | 6 | 0 | 7 | 4 | 0 | 3 | 8 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 6 | 10 | 0 | 6 | 10 | 0 | 6 | 6 | 0 | 6 | 6 | 0 |
| Maximum Green [s] | 11 | 33 | 0 | 11 | 33 | 0 | 14 | 35 | 0 | 18 | 39 | 0 |
| Amber [s] | 3.0 | 4.5 | 0.0 | 3.0 | 4.5 | 0.0 | 3.0 | 4.4 | 0.0 | 3.0 | 4.1 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 22 | 40 | 0 | 22 | 40 | 0 | 22 | 39 | 0 | 39 | 56 | 0 |
| Vehicle Extension [s] | 2.0 | 3.0 | 0.0 | 2.0 | 3.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 18 | 0 | 0 | 24 | 0 | 0 | 26 | 0 | 0 | 30 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 3.5 | 0.0 | 2.0 | 3.5 | 0.0 | 2.0 | 3.4 | 0.0 | 2.0 | 3.1 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | Yes | | No | Yes | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | R | L | C | R | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 |
| L, Total Lost Time per Cycle [s] | 4.00 | 5.50 | 5.50 | 4.00 | 5.50 | 5.50 | 4.00 | 5.40 | 5.40 | 4.00 | 5.10 | 5.10 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 3.50 | 3.50 | 2.00 | 3.50 | 3.50 | 2.00 | 3.40 | 3.40 | 2.00 | 3.10 | 3.10 |
| g_i, Effective Green Time [s] | 18 | 49 | 49 | 9 | 40 | 40 | 15 | 36 | 36 | 27 | 49 | 49 |
| g / C, Green / Cycle | 0.13 | 0.35 | 0.35 | 0.06 | 0.29 | 0.29 | 0.10 | 0.26 | 0.26 | 0.19 | 0.35 | 0.35 |
| (v / s)_i Volume / Saturation Flow Rate | 0.12 | 0.18 | 0.18 | 0.05 | 0.18 | 0.25 | 0.09 | 0.11 | 0.09 | 0.18 | 0.33 | 0.17 |
| s, saturation flow rate [veh/h] | 1767 | 1855 | 1663 | 1767 | 3532 | 1557 | 1767 | 3532 | 1569 | 1767 | 3532 | 1577 |
| c, Capacity [veh/h] | 227 | 654 | 586 | 110 | 1011 | 446 | 185 | 908 | 404 | 341 | 1229 | 548 |
| d1, Uniform Delay [s] | 60.56 | 35.55 | 35.57 | 64.79 | 43.21 | 47.17 | 61.76 | 43.54 | 42.18 | 55.60 | 44.55 | 35.65 |
| k, delay calibration | 0.37 | 0.50 | 0.50 | 0.04 | 0.50 | 0.50 | 0.17 | 0.04 | 0.04 | 0.21 | 0.04 | 0.04 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 40.47 | 2.69 | 3.01 | 5.30 | 2.77 | 19.67 | 17.93 | 0.13 | 0.18 | 19.21 | 2.24 | 0.24 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.95 | 0.50 | 0.50 | 0.81 | 0.61 | 0.87 | 0.88 | 0.44 | 0.33 | 0.94 | 0.95 | 0.48 |
| d, Delay for Lane Group [s/veh] | 101.03 | 38.24 | 38.57 | 70.10 | 45.98 | 66.84 | 79.69 | 43.66 | 42.36 | 74.81 | 46.78 | 35.89 |
| Lane Group LOS | F | D | D | E | D | E | E | D | D | E | D | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | Yes | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 10.07 | 9.10 | 8.23 | 3.27 | 9.57 | 14.92 | 6.53 | 5.79 | 3.76 | 12.82 | 19.91 | 6.99 |
| 50th-Percentile Queue Length [ft/ln] | 251.63 | 227.41 | 205.68 | 81.64 | 239.30 | 372.94 | 163.31 | 144.80 | 94.00 | 320.43 | 497.68 | 174.77 |
| 95th-Percentile Queue Length [veh/ln] | 15.27 | 14.04 | 12.93 | 5.88 | 14.65 | 21.25 | 10.72 | 9.74 | 6.77 | 18.69 | 27.22 | 11.33 |
| 95th-Percentile Queue Length [ft/ln] | 381.71 | 351.07 | 323.27 | 146.96 | 366.15 | 531.30 | 268.10 | 243.48 | 169.20 | 467.21 | 680.61 | 283.18 |

**Movement, Approach, & Intersection Results**

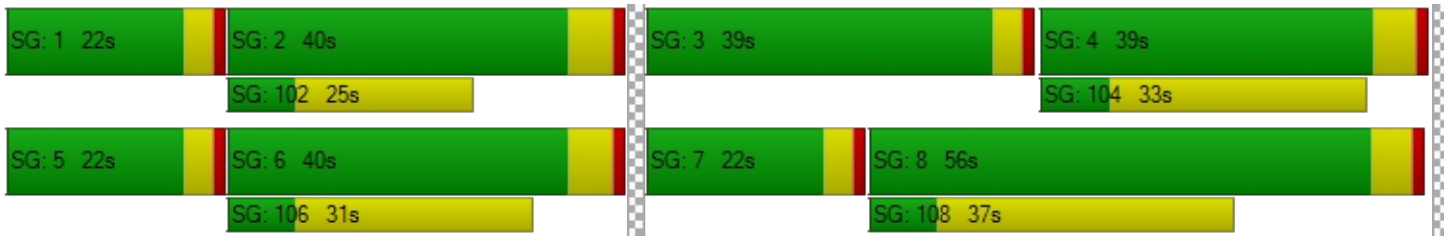
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 101.03 | 38.32 | 38.57 | 70.10 | 45.98 | 66.84 | 79.69 | 43.66 | 42.36 | 74.81 | 46.78 | 35.89 |
| Movement LOS | F | D | D | E | D | E | E | D | D | E | D | D |
| d_A, Approach Delay [s/veh] | 54.64 | | | 55.30 | | | 51.79 | | | 50.26 | | |
| Approach LOS | D | | | E | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 52.60 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.794 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 1527.60 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 59.43 | 59.43 | 59.43 | 59.43 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.817 | 2.895 | 3.010 | 2.935 |
| Crosswalk LOS | C | C | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 493 | 493 | 480 | 727 |
| d_b, Bicycle Delay [s] | 39.75 | 39.77 | 40.43 | 28.35 |
| l_b,int, Bicycle LOS Score for Intersection | 2.247 | 2.463 | 2.135 | 3.006 |
| Bicycle LOS | B | B | B | C |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main St/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 11.9 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.433 |

**Intersection Setup**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pock | 0 | 1 | 1 | 0 | 0 | 1 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 95.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocke | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | 40.00 | | 40.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | No | | No | | No | |

**Volumes**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h | 348 | 66 | 151 | 569 | 51 | 190 |
| Base Volume Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percenta | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh | 14 | 5 | 11 | 47 | 14 | 24 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment | 8 | 0 | 0 | 24 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volum | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/ | 370 | 71 | 162 | 640 | 65 | 214 |
| Peak Hour Factor | 0.9000 | 0.9000 | 0.7800 | 0.7800 | 0.8600 | 0.8600 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [ | 103 | 20 | 52 | 205 | 19 | 62 |
| Total Analysis Volume [ve | 411 | 79 | 208 | 821 | 76 | 249 |
| Presence of On-Street Pa | No | No | No | No | No | No |
| On-Street Parking Maneu | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [ | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestri | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestria | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/ | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Free Running |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Permissive | Permissive | Protected | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 6 | 0 | 5 | 2 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | - | - | Lead | - | Lead | - |
| Minimum Green [s] | 5 | 0 | 5 | 5 | 5 | 0 |
| Maximum Green [s] | 30 | 0 | 30 | 60 | 30 | 0 |
| Amber [s] | 4.4 | 0.0 | 3.0 | 4.4 | 4.4 | 0.0 |
| All red [s] | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 0 | 0 | 0 | 0 | 0 | 0 |
| Vehicle Extension [s] | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 5 | 0 | 0 | 5 | 5 | 0 |
| Pedestrian Clearance [s] | 10 | 0 | 0 | 10 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | No | | | No | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 3.4 | 0.0 | 2.0 | 3.4 | 3.4 | 0.0 |
| Minimum Recall | No | | No | No | No | |
| Maximum Recall | No | | No | No | No | |
| Pedestrian Recall | No | | No | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | C | R | L | C | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 37 | 37 | 37 | 37 | 37 | 37 |
| L, Total Lost Time per Cycle [s] | 5.40 | 5.40 | 4.00 | 5.40 | 5.40 | 5.40 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 3.40 | 3.40 | 2.00 | 3.40 | 3.40 | 3.40 |
| g_i, Effective Green Time [s] | 7 | 7 | 6 | 18 | 9 | 9 |
| g / C, Green / Cycle | 0.20 | 0.20 | 0.17 | 0.48 | 0.23 | 0.23 |
| (v / s)_i Volume / Saturation Flow Rate | 0.13 | 0.06 | 0.13 | 0.26 | 0.05 | 0.17 |
| s, saturation flow rate [veh/h] | 3197 | 1427 | 1599 | 3197 | 1599 | 1427 |
| c, Capacity [veh/h] | 641 | 286 | 271 | 1527 | 371 | 331 |
| d1, Uniform Delay [s] | 13.64 | 12.58 | 14.74 | 6.83 | 11.52 | 13.29 |
| k, delay calibration | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 1.08 | 0.52 | 4.51 | 0.30 | 0.27 | 3.47 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.64 | 0.28 | 0.77 | 0.54 | 0.20 | 0.75 |
| d, Delay for Lane Group [s/veh] | 14.72 | 13.10 | 19.24 | 7.12 | 11.79 | 16.76 |
| Lane Group LOS | B | B | B | A | B | B |
| Critical Lane Group | Yes | No | Yes | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 1.25 | 0.45 | 1.59 | 1.19 | 0.39 | 1.70 |
| 50th-Percentile Queue Length [ft/ln] | 31.28 | 11.27 | 39.69 | 29.81 | 9.83 | 42.48 |
| 95th-Percentile Queue Length [veh/ln] | 2.25 | 0.81 | 2.86 | 2.15 | 0.71 | 3.06 |
| 95th-Percentile Queue Length [ft/ln] | 56.30 | 20.29 | 71.43 | 53.66 | 17.69 | 76.46 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 14.72 | 13.10 | 19.24 | 7.12 | 11.79 | 16.76 |
| Movement LOS | B | B | B | A | B | B |
| d_A, Approach Delay [s/veh] | 14.46 | | 9.57 | | 15.59 | |
| Approach LOS | B | | A | | B | |
| d_I, Intersection Delay [s/veh] | 11.93 | | | | | |
| Intersection LOS | B | | | | | |
| Intersection V/C | 0.433 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 0.0 | 0.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 0.00 | 0.00 |
| l_p,int, Pedestrian LOS Score for Intersection | 0.000 | 0.000 | 0.000 |
| Crosswalk LOS | F | F | F |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 667 | 1333 | 667 |
| d_b, Bicycle Delay [s] | 20.00 | 5.00 | 20.00 |
| l_b,int, Bicycle LOS Score for Intersection | 1.964 | 2.409 | 1.560 |
| Bicycle LOS | A | B | A |

## Sequence

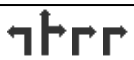
| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 1: Sellers Rd/E Cypress Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 36.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.676 |

**Intersection Setup**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pock | 1 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 150.00 | 100.00 | 150.00 | 110.00 | 100.00 | 100.00 | 185.00 | 100.00 | 185.00 | 250.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocke | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 45.00 | | | 50.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h | 86 | 2 | 106 | 3 | 0 | 10 | 1 | 379 | 7 | 218 | 133 | 0 |
| Base Volume Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percenta | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh | 54 | 98 | 679 | 1 | 25 | 125 | 127 | 463 | 61 | 97 | 566 | 1 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment | 16 | 16 | 1 | 10 | 16 | 52 | 53 | 148 | 15 | 1 | 94 | 11 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/ | 156 | 116 | 786 | 14 | 41 | 187 | 181 | 990 | 83 | 316 | 793 | 12 |
| Peak Hour Factor | 0.8400 | 0.8400 | 0.8400 | 0.6500 | 0.6500 | 0.6500 | 0.9200 | 0.9200 | 0.9200 | 0.9100 | 0.9100 | 0.9100 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [ | 46 | 35 | 234 | 5 | 16 | 72 | 49 | 269 | 23 | 87 | 218 | 3 |
| Total Analysis Volume [ve | 186 | 138 | 936 | 22 | 63 | 288 | 197 | 1076 | 90 | 347 | 871 | 13 |
| Presence of On-Street Pa | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestri | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestria | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/ | 0 | | | 0 | | | 1 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 120 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Split | Split | Split | Split | Split | Split | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 0 | 8 | 0 | 0 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | - | - | - | - | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 0 | 5 | 0 | 0 | 5 | 0 | 5 | 5 | 0 | 5 | 5 | 0 |
| Maximum Green [s] | 0 | 30 | 0 | 0 | 30 | 0 | 30 | 60 | 0 | 30 | 60 | 0 |
| Amber [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 4.0 | 0.0 | 3.0 | 4.0 | 0.0 |
| All red [s] | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 2.0 | 0.0 | 1.0 | 2.0 | 0.0 |
| Split [s] | 0 | 43 | 0 | 0 | 21 | 0 | 12 | 32 | 0 | 24 | 44 | 0 |
| Vehicle Extension [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Minimum Recall | | No | | | No | | No | No | | No | No | |
| Maximum Recall | | No | | | No | | No | No | | No | No | |
| Pedestrian Recall | | No | | | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | C | R | L | C | C | L | C | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | 94 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 6.00 | 6.00 | 4.00 | 6.00 | 6.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 4.00 | 4.00 | 2.00 | 4.00 | 4.00 |
| g_i, Effective Green Time [s] | 27 | 27 | 27 | 12 | 12 | 13 | 25 | 25 | 12 | 25 | 25 |
| g / C, Green / Cycle | 0.28 | 0.28 | 0.28 | 0.13 | 0.13 | 0.13 | 0.27 | 0.27 | 0.13 | 0.26 | 0.26 |
| (v / s)_i Volume / Saturation Flow Rate | 0.11 | 0.23 | 0.25 | 0.05 | 0.10 | 0.11 | 0.22 | 0.22 | 0.10 | 0.17 | 0.17 |
| s, saturation flow rate [veh/h] | 1752 | 1652 | 2768 | 1816 | 2768 | 1752 | 3503 | 1762 | 3403 | 3503 | 1826 |
| c, Capacity [veh/h] | 494 | 466 | 781 | 240 | 365 | 237 | 930 | 468 | 444 | 913 | 476 |
| d1, Uniform Delay [s] | 27.28 | 31.86 | 32.42 | 37.40 | 39.79 | 39.87 | 32.77 | 32.81 | 39.83 | 30.99 | 30.99 |
| k, delay calibration | 0.11 | 0.26 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.47 | 8.90 | 3.40 | 0.89 | 3.83 | 7.42 | 2.04 | 4.03 | 3.05 | 0.74 | 1.42 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| X, volume / capacity | 0.38 | 0.83 | 0.88 | 0.35 | 0.79 | 0.83 | 0.83 | 0.84 | 0.78 | 0.64 | 0.64 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| d, Delay for Lane Group [s/veh] | 27.75 | 40.76 | 35.82 | 38.29 | 43.62 | 47.29 | 34.81 | 36.83 | 42.88 | 31.73 | 32.41 |
| Lane Group LOS | C | D | D | D | D | D | C | D | D | C | C |
| Critical Lane Group | No | No | Yes | No | Yes | No | No | Yes | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 3.19 | 8.76 | 7.22 | 1.75 | 3.24 | 4.73 | 8.07 | 8.41 | 3.86 | 5.52 | 5.85 |
| 50th-Percentile Queue Length [ft/ln] | 79.76 | 219.02 | 180.54 | 43.74 | 81.02 | 118.17 | 201.66 | 210.24 | 96.43 | 138.01 | 146.15 |
| 95th-Percentile Queue Length [veh/ln] | 5.74 | 13.62 | 11.63 | 3.15 | 5.83 | 8.29 | 12.72 | 13.17 | 6.94 | 9.37 | 9.81 |
| 95th-Percentile Queue Length [ft/ln] | 143.56 | 340.38 | 290.72 | 78.73 | 145.83 | 207.31 | 318.10 | 329.13 | 173.57 | 234.35 | 245.28 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 27.75 | 40.76 | 37.09 | 38.29 | 38.29 | 43.62 | 47.29 | 35.38 | 36.83 | 42.88 | 31.96 | 32.41 |
| Movement LOS | C | D | D | D | D | D | D | D | D | D | C | C |
| d_A, Approach Delay [s/veh] | 36.15 | | | 42.41 | | | 37.19 | | | 35.04 | | |
| Approach LOS | D | | | D | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 36.72 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.676 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 49.50 | 49.50 | 49.50 | 49.50 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.943 | 2.548 | 3.173 | 3.402 |
| Crosswalk LOS | C | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 650 | 283 | 433 | 633 |
| d_b, Bicycle Delay [s] | 27.34 | 44.20 | 36.84 | 28.02 |
| l_b,int, Bicycle LOS Score for Intersection | 3.639 | 2.175 | 2.309 | 2.237 |
| Bicycle LOS | D | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 4 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 2: Sellers Ave/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 50.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.339 |

**Intersection Setup**

| Name | Sellers Ave | | Sellers Ave | | Laurel Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pock | 1 | 0 | 0 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocke | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 35.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | Yes | | Yes | | Yes | |

**Volumes**

| Name | Sellers Ave | | Sellers Ave | | Laurel Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h | 0 | 194 | 75 | 150 | 25 | 25 |
| Base Volume Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percenta | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh | 0 | 186 | 134 | 35 | 645 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volum | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/ | 0 | 380 | 209 | 185 | 670 | 25 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [ | 0 | 95 | 52 | 46 | 168 | 6 |
| Total Analysis Volume [ve | 0 | 380 | 209 | 185 | 670 | 25 |
| Presence of On-Street Pa | No | No | No | No | No | No |
| On-Street Parking Maneu | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [ | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestri | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestria | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/ | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 120 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fixed time |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protected | Permissive | Permissive | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 6 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | Lead | - | - | - | Lead | - |
| Minimum Green [s] | 5 | 5 | 5 | 0 | 5 | 0 |
| Maximum Green [s] | 30 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 35 | 31 | 65 | 0 | 69 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 5 | 5 | 0 | 5 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 10 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | No | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | No | | No | |
| Maximum Recall | No | No | No | | No | |
| Pedestrian Recall | No | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | R | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 169 | 169 | 169 | 169 | 169 | 169 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 31 | 27 | 61 | 61 | 65 | 65 |
| g / C, Green / Cycle | 0.18 | 0.16 | 0.36 | 0.36 | 0.38 | 0.38 |
| (v / s)_i Volume / Saturation Flow Rate | 0.00 | 0.12 | 0.12 | 0.07 | 0.22 | 0.02 |
| s, saturation flow rate [veh/h] | 1603 | 3204 | 1683 | 2532 | 3113 | 1431 |
| c, Capacity [veh/h] | 294 | 512 | 607 | 914 | 1197 | 550 |
| d1, Uniform Delay [s] | 0.00 | 67.68 | 39.40 | 37.23 | 40.78 | 32.57 |
| k, delay calibration | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.00 | 9.37 | 1.55 | 0.50 | 1.89 | 0.16 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.00 | 0.74 | 0.34 | 0.20 | 0.56 | 0.05 |
| d, Delay for Lane Group [s/veh] | 0.00 | 77.05 | 40.95 | 37.73 | 42.67 | 32.72 |
| Lane Group LOS | A | E | D | D | D | C |
| Critical Lane Group | No | No | Yes | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.00 | 8.35 | 6.51 | 2.68 | 11.32 | 0.68 |
| 50th-Percentile Queue Length [ft/ln] | 0.00 | 208.78 | 162.87 | 66.97 | 282.98 | 16.99 |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 13.09 | 10.70 | 4.82 | 16.84 | 1.22 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 327.27 | 267.52 | 120.54 | 420.92 | 30.59 |

**Movement, Approach, & Intersection Results**

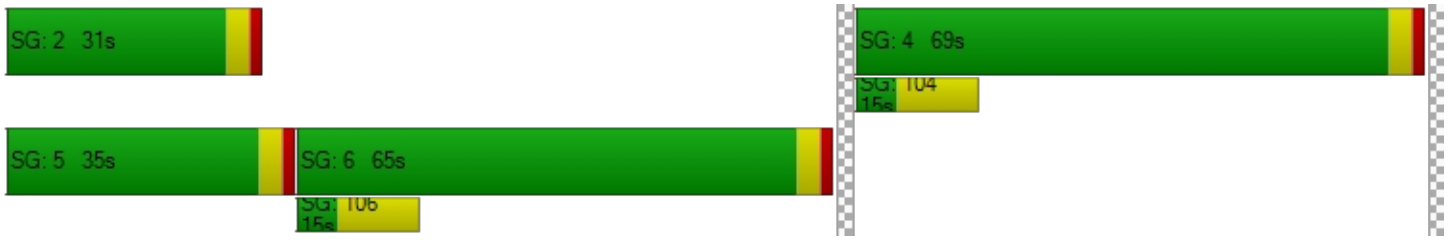
| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 0.00 | 77.05 | 40.95 | 37.73 | 42.67 | 32.72 |
| Movement LOS | A | E | D | D | D | C |
| d_A, Approach Delay [s/veh] | 77.05 | | 39.44 | | 42.31 | |
| Approach LOS | E | | D | | D | |
| d_I, Intersection Delay [s/veh] | 50.53 | | | | | |
| Intersection LOS | D | | | | | |
| Intersection V/C | 0.339 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 9.0 | 9.0 | 9.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 51.34 | 51.34 | 51.34 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.396 | 2.784 | 2.515 |
| Crosswalk LOS | B | C | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 450 | 1017 | 1083 |
| d_b, Bicycle Delay [s] | 36.04 | 14.50 | 12.60 |
| l_b,int, Bicycle LOS Score for Intersection | 1.873 | 2.210 | 1.560 |
| Bicycle LOS | A | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Sellers Rd/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 19.1 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.775 |

**Intersection Setup**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pock | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocke | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 40.00 | | | 40.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h | 88 | 203 | 51 | 13 | 149 | 22 | 34 | 113 | 52 | 43 | 85 | 21 |
| Base Volume Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percenta | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh | 4 | 132 | 0 | 0 | 77 | 21 | 41 | 0 | 2 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/ | 92 | 336 | 51 | 13 | 227 | 43 | 75 | 113 | 54 | 43 | 85 | 21 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [ | 23 | 84 | 13 | 3 | 57 | 11 | 19 | 28 | 14 | 11 | 21 | 5 |
| Total Analysis Volume [ve | 92 | 336 | 51 | 13 | 227 | 43 | 75 | 113 | 54 | 43 | 85 | 21 |
| Pedestrian Volume [ped/h | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | |
|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 618 | 587 | 552 | 526 |
| Degree of Utilization, x | 0.77 | 0.48 | 0.44 | 0.28 |

**Movement, Approach, & Intersection Results**

| | | | | |
|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 7.27 | 2.61 | 2.22 | 1.16 |
| 95th-Percentile Queue Length [ft] | 181.85 | 65.33 | 55.44 | 28.92 |
| Approach Delay [s/veh] | 25.94 | 14.71 | 14.53 | 12.52 |
| Approach LOS | D | B | B | B |
| Intersection Delay [s/veh] | 19.06 | | | |
| Intersection LOS | C | | | |

**Intersection Level Of Service Report**
**Intersection 6: Main St/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 52.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.658 |

**Intersection Setup**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration | | | | | | | | | | | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pock | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 305.00 | 100.00 | 1150.00 | 215.00 | 100.00 | 215.00 | 160.00 | 100.00 | 160.00 | 240.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocke | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 49.21 | 0.00 | 0.00 | 49.21 | 0.00 | 0.00 | 49.21 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | | 40.00 | | | 40.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h | 136 | 345 | 119 | 95 | 326 | 29 | 140 | 187 | 123 | 58 | 245 | 57 |
| Base Volume Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percenta | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh | 32 | 45 | 14 | 28 | 59 | 265 | 76 | 659 | 42 | 2 | 50 | 16 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment | 24 | 22 | 0 | 4 | 18 | 47 | 83 | 6 | 40 | 0 | 2 | 4 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/ | 192 | 412 | 133 | 127 | 403 | 341 | 299 | 852 | 205 | 60 | 297 | 77 |
| Peak Hour Factor | 0.8900 | 0.8900 | 0.8900 | 0.8800 | 0.8800 | 0.8800 | 0.9600 | 0.9600 | 0.9600 | 0.8800 | 0.8800 | 0.8800 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [ | 54 | 116 | 37 | 36 | 114 | 97 | 78 | 222 | 53 | 17 | 84 | 22 |
| Total Analysis Volume [ve | 216 | 463 | 149 | 144 | 458 | 388 | 311 | 888 | 214 | 68 | 338 | 88 |
| Presence of On-Street Pa | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestri | 1 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian | 0 | | | 0 | | | 1 | | | 0 | | |
| v_co, Outbound Pedestria | 1 | | | 0 | | | 0 | | | 1 | | |
| v_ci, Inbound Pedestrian | 1 | | | 0 | | | 0 | | | 1 | | |
| v_ab, Corner Pedestrian | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/ | 0 | | | 0 | | | 0 | | | 1 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 140 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fully actuated |
| Offset [s] | 108.0 |
| Offset Reference | Lagging Force-Off |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 0 | 1 | 6 | 0 | 7 | 4 | 0 | 3 | 8 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 6 | 10 | 0 | 6 | 10 | 0 | 6 | 6 | 0 | 6 | 6 | 0 |
| Maximum Green [s] | 11 | 33 | 0 | 11 | 33 | 0 | 14 | 35 | 0 | 18 | 39 | 0 |
| Amber [s] | 3.0 | 4.5 | 0.0 | 3.0 | 4.5 | 0.0 | 3.0 | 4.4 | 0.0 | 3.0 | 4.1 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 33 | 33 | 0 | 37 | 37 | 0 | 27 | 59 | 0 | 11 | 43 | 0 |
| Vehicle Extension [s] | 2.0 | 3.0 | 0.0 | 2.0 | 3.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 18 | 0 | 0 | 24 | 0 | 0 | 26 | 0 | 0 | 30 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 3.5 | 0.0 | 2.0 | 3.5 | 0.0 | 2.0 | 3.4 | 0.0 | 2.0 | 3.1 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | Yes | | No | Yes | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | R | L | C | R | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 |
| L, Total Lost Time per Cycle [s] | 4.00 | 5.50 | 5.50 | 4.00 | 5.50 | 5.50 | 4.00 | 5.40 | 5.40 | 4.00 | 5.10 | 5.10 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 3.50 | 3.50 | 2.00 | 3.50 | 3.50 | 2.00 | 3.40 | 3.40 | 2.00 | 3.10 | 3.10 |
| g_i, Effective Green Time [s] | 19 | 64 | 64 | 13 | 58 | 58 | 23 | 37 | 37 | 7 | 22 | 22 |
| g / C, Green / Cycle | 0.14 | 0.45 | 0.45 | 0.09 | 0.41 | 0.41 | 0.16 | 0.27 | 0.27 | 0.05 | 0.15 | 0.15 |
| (v / s)_i Volume / Saturation Flow Rate | 0.12 | 0.17 | 0.17 | 0.08 | 0.13 | 0.25 | 0.18 | 0.25 | 0.14 | 0.04 | 0.10 | 0.06 |
| s, saturation flow rate [veh/h] | 1767 | 1855 | 1701 | 1767 | 3532 | 1577 | 1767 | 3532 | 1575 | 1767 | 3532 | 1556 |
| c, Capacity [veh/h] | 238 | 843 | 773 | 167 | 1464 | 653 | 288 | 943 | 420 | 86 | 546 | 241 |
| d1, Uniform Delay [s] | 59.65 | 25.12 | 25.13 | 62.41 | 27.54 | 31.80 | 58.49 | 50.18 | 43.46 | 65.77 | 55.23 | 52.90 |
| k, delay calibration | 0.09 | 0.50 | 0.50 | 0.04 | 0.50 | 0.50 | 0.49 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 10.48 | 1.29 | 1.41 | 5.03 | 0.56 | 3.94 | 74.67 | 2.28 | 0.36 | 5.85 | 0.43 | 0.35 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.91 | 0.38 | 0.38 | 0.86 | 0.31 | 0.59 | 1.08 | 0.94 | 0.51 | 0.79 | 0.62 | 0.37 |
| d, Delay for Lane Group [s/veh] | 70.12 | 26.41 | 26.55 | 67.44 | 28.10 | 35.74 | 133.16 | 52.46 | 43.82 | 71.62 | 55.66 | 53.25 |
| Lane Group LOS | E | C | C | E | C | D | F | D | D | E | E | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | No | Yes | No | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 8.14 | 7.19 | 6.64 | 5.23 | 5.23 | 10.73 | 16.03 | 15.21 | 6.26 | 2.53 | 5.59 | 2.80 |
| 50th-Percentile Queue Length [ft/ln] | 203.54 | 179.68 | 165.91 | 130.64 | 130.78 | 268.13 | 400.81 | 380.15 | 156.62 | 63.37 | 139.80 | 69.89 |
| 95th-Percentile Queue Length [veh/ln] | 12.82 | 11.58 | 10.86 | 8.97 | 8.98 | 16.10 | 23.46 | 21.60 | 10.37 | 4.56 | 9.47 | 5.03 |
| 95th-Percentile Queue Length [ft/ln] | 320.53 | 289.60 | 271.54 | 224.36 | 224.56 | 402.41 | 586.60 | 540.02 | 259.24 | 114.07 | 236.75 | 125.80 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 70.12 | 26.45 | 26.55 | 67.44 | 28.10 | 35.74 | 133.16 | 52.46 | 43.82 | 71.62 | 55.66 | 53.25 |
| Movement LOS | E | C | C | E | C | D | F | D | D | E | E | D |
| d_A, Approach Delay [s/veh] | 37.86 | | | 36.82 | | | 68.92 | | | 57.43 | | |
| Approach LOS | D | | | D | | | E | | | E | | |
| d_I, Intersection Delay [s/veh] | 51.96 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.658 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 5111.22 | 0.00 | 0.00 | 2680.42 |
| d_p, Pedestrian Delay [s] | 59.43 | 59.43 | 59.43 | 59.43 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.729 | 2.875 | 2.984 | 2.792 |
| Crosswalk LOS | B | C | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 393 | 450 | 766 | 541 |
| d_b, Bicycle Delay [s] | 45.20 | 42.04 | 26.66 | 37.25 |
| l_b,int, Bicycle LOS Score for Intersection | 2.243 | 2.376 | 2.725 | 1.967 |
| Bicycle LOS | B | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main St/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 7.9 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.323 |

**Intersection Setup**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pock | 0 | 1 | 1 | 0 | 0 | 1 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 95.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocke | 0 | 0 | 0 | 1 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | 40.00 | | 40.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | No | | No | | No | |

**Volumes**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h | 562 | 98 | 112 | 445 | 1 | 2 |
| Base Volume Adjustment | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percenta | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh | 54 | 16 | 28 | 31 | 9 | 16 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment | 26 | 0 | 0 | 16 | 0 | 0 |
| Other Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Right Turn on Red Volum | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/ | 642 | 114 | 140 | 492 | 10 | 18 |
| Peak Hour Factor | 0.9400 | 0.9400 | 0.9100 | 0.9100 | 0.9500 | 0.9500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [ | 171 | 30 | 38 | 135 | 3 | 5 |
| Total Analysis Volume [ve | 683 | 121 | 154 | 541 | 11 | 19 |
| Presence of On-Street Pa | No | No | No | No | No | No |
| On-Street Parking Maneu | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [ | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestri | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestria | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/ | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Free Running |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Permissive | Permissive | Protected | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 6 | 0 | 5 | 2 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | - | - | Lead | - | Lead | - |
| Minimum Green [s] | 5 | 0 | 5 | 5 | 5 | 0 |
| Maximum Green [s] | 30 | 0 | 30 | 60 | 30 | 0 |
| Amber [s] | 4.4 | 0.0 | 3.0 | 4.4 | 4.4 | 0.0 |
| All red [s] | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 0 | 0 | 0 | 0 | 0 | 0 |
| Vehicle Extension [s] | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 5 | 0 | 0 | 5 | 5 | 0 |
| Pedestrian Clearance [s] | 10 | 0 | 0 | 10 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | No | | | No | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 3.4 | 0.0 | 2.0 | 3.4 | 3.4 | 0.0 |
| Minimum Recall | No | | No | No | No | |
| Maximum Recall | No | | No | No | No | |
| Pedestrian Recall | No | | No | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | C | R | L | C | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 29 | 29 | 29 | 29 | 29 | 29 |
| L, Total Lost Time per Cycle [s] | 5.40 | 5.40 | 4.00 | 5.40 | 5.40 | 5.40 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 3.40 | 3.40 | 2.00 | 3.40 | 3.40 | 3.40 |
| g_i, Effective Green Time [s] | 9 | 9 | 4 | 17 | 1 | 1 |
| g / C, Green / Cycle | 0.32 | 0.32 | 0.12 | 0.59 | 0.04 | 0.04 |
| (v / s)_i Volume / Saturation Flow Rate | 0.21 | 0.08 | 0.10 | 0.17 | 0.01 | 0.01 |
| s, saturation flow rate [veh/h] | 3197 | 1427 | 1599 | 3197 | 1599 | 1427 |
| c, Capacity [veh/h] | 1035 | 462 | 200 | 1879 | 60 | 54 |
| d1, Uniform Delay [s] | 8.39 | 7.20 | 12.21 | 2.95 | 13.44 | 13.53 |
| k, delay calibration | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.73 | 0.30 | 6.11 | 0.08 | 1.43 | 3.87 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.66 | 0.26 | 0.77 | 0.29 | 0.18 | 0.35 |
| d, Delay for Lane Group [s/veh] | 9.11 | 7.50 | 18.32 | 3.03 | 14.87 | 17.40 |
| Lane Group LOS | A | A | B | A | B | B |
| Critical Lane Group | Yes | No | Yes | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 1.00 | 0.31 | 0.96 | 0.02 | 0.07 | 0.14 |
| 50th-Percentile Queue Length [ft/ln] | 25.05 | 7.79 | 24.07 | 0.55 | 1.80 | 3.54 |
| 95th-Percentile Queue Length [veh/ln] | 1.80 | 0.56 | 1.73 | 0.04 | 0.13 | 0.26 |
| 95th-Percentile Queue Length [ft/ln] | 45.09 | 14.02 | 43.32 | 0.98 | 3.25 | 6.38 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 9.11 | 7.50 | 18.32 | 3.03 | 14.87 | 17.40 |
| Movement LOS | A | A | B | A | B | B |
| d_A, Approach Delay [s/veh] | 8.87 | | 6.42 | | 16.47 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 7.91 | | | | | |
| Intersection LOS | A | | | | | |
| Intersection V/C | 0.323 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 0.0 | 0.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 0.00 | 0.00 |
| I_p,int, Pedestrian LOS Score for Intersection | 0.000 | 0.000 | 0.000 |
| Crosswalk LOS | F | F | F |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 667 | 1333 | 667 |
| d_b, Bicycle Delay [s] | 20.00 | 5.00 | 20.00 |
| I_b,int, Bicycle LOS Score for Intersection | 2.223 | 2.133 | 1.560 |
| Bicycle LOS | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



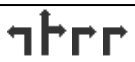
# Appendix E

## Background plus Project Conditions LOS Reports

**Intersection Level Of Service Report**
**Intersection 1: Sellers Rd/E Cypress Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 45.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.751 |

**Intersection Setup**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 150.00 | 100.00 | 150.00 | 110.00 | 100.00 | 100.00 | 185.00 | 100.00 | 185.00 | 250.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 45.00 | | | 50.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 96 | 5 | 47 | 1 | 2 | 8 | 11 | 289 | 127 | 295 | 301 | 1 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 69 | 52 | 167 | 7 | 205 | 85 | 21 | 152 | 32 | 214 | 640 | 5 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 9 | 10 | 27 | 5 | 8 | 28 | 29 | 21 | 8 | 79 | 46 | 6 |
| Other Volume [veh/h] | 12 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 186 | 67 | 242 | 13 | 215 | 121 | 61 | 462 | 172 | 588 | 987 | 12 |
| Peak Hour Factor | 0.7700 | 0.7700 | 0.7700 | 0.6900 | 0.6900 | 0.6900 | 0.8100 | 0.8100 | 0.8100 | 0.7000 | 0.7000 | 0.7000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 60 | 22 | 79 | 5 | 78 | 44 | 19 | 143 | 53 | 210 | 353 | 4 |
| Total Analysis Volume [veh/h] | 242 | 87 | 314 | 19 | 312 | 175 | 75 | 570 | 212 | 840 | 1410 | 17 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 80 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Split | Split | Split | Split | Split | Split | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 0 | 8 | 0 | 0 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | - | - | - | - | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 0 | 5 | 0 | 0 | 5 | 0 | 5 | 5 | 0 | 5 | 5 | 0 |
| Maximum Green [s] | 0 | 30 | 0 | 0 | 30 | 0 | 30 | 60 | 0 | 30 | 60 | 0 |
| Amber [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 4.0 | 0.0 | 3.0 | 4.0 | 0.0 |
| All red [s] | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 2.0 | 0.0 | 1.0 | 2.0 | 0.0 |
| Split [s] | 0 | 21 | 0 | 0 | 21 | 0 | 11 | 24 | 0 | 14 | 27 | 0 |
| Vehicle Extension [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Minimum Recall | | No | | | No | | No | No | | No | No | |
| Maximum Recall | | No | | | No | | No | No | | No | No | |
| Pedestrian Recall | | No | | | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | C | R | L | C | C | L | C | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 6.00 | 6.00 | 4.00 | 6.00 | 6.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 4.00 | 4.00 | 2.00 | 4.00 | 4.00 |
| g_i, Effective Green Time [s] | 19 | 19 | 19 | 23 | 23 | 6 | 24 | 24 | 30 | 48 | 48 |
| g / C, Green / Cycle | 0.16 | 0.16 | 0.16 | 0.20 | 0.20 | 0.06 | 0.21 | 0.21 | 0.26 | 0.42 | 0.42 |
| (v / s)_i Volume / Saturation Flow Rate | 0.14 | 0.09 | 0.09 | 0.18 | 0.06 | 0.04 | 0.15 | 0.16 | 0.25 | 0.39 | 0.39 |
| s, saturation flow rate [veh/h] | 1752 | 1710 | 2768 | 1835 | 2768 | 1752 | 3503 | 1600 | 3403 | 1840 | 1832 |
| c, Capacity [veh/h] | 287 | 281 | 454 | 370 | 558 | 97 | 751 | 343 | 891 | 774 | 771 |
| d1, Uniform Delay [s] | 46.08 | 43.60 | 43.63 | 44.22 | 38.69 | 52.97 | 41.39 | 41.56 | 41.11 | 31.15 | 31.24 |
| k, delay calibration | 0.11 | 0.11 | 0.11 | 0.22 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.26 | 0.26 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 6.59 | 1.63 | 1.03 | 14.05 | 0.32 | 12.10 | 1.26 | 2.94 | 5.83 | 10.75 | 11.24 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.84 | 0.54 | 0.55 | 0.90 | 0.31 | 0.77 | 0.71 | 0.73 | 0.94 | 0.92 | 0.93 |
| d, Delay for Lane Group [s/veh] | 52.67 | 45.23 | 44.66 | 58.27 | 39.01 | 65.07 | 42.64 | 44.50 | 46.94 | 41.90 | 42.48 |
| Lane Group LOS | D | D | D | E | D | E | D | D | D | D | D |
| Critical Lane Group | Yes | No | No | Yes | No | Yes | No | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 6.86 | 3.90 | 3.15 | 10.08 | 2.02 | 2.38 | 6.80 | 6.53 | 11.58 | 19.18 | 19.32 |
| 50th-Percentile Queue Length [ft/ln] | 171.50 | 97.51 | 78.66 | 251.95 | 50.55 | 59.51 | 169.97 | 163.32 | 289.50 | 479.40 | 482.92 |
| 95th-Percentile Queue Length [veh/ln] | 11.16 | 7.02 | 5.66 | 15.28 | 3.64 | 4.28 | 11.07 | 10.72 | 17.16 | 26.36 | 26.52 |
| 95th-Percentile Queue Length [ft/ln] | 278.89 | 175.52 | 141.59 | 382.10 | 90.98 | 107.11 | 276.87 | 268.12 | 429.03 | 658.94 | 663.12 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 52.67 | 45.23 | 44.76 | 58.27 | 58.27 | 39.01 | 65.07 | 42.76 | 44.50 | 46.94 | 42.18 | 42.48 |
| Movement LOS | D | D | D | E | E | D | E | D | D | D | D | D |
| d_A, Approach Delay [s/veh] | 47.81 | | | 51.61 | | | 45.14 | | | 43.95 | | |
| Approach LOS | D | | | D | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 45.68 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.751 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 29.76 | 29.76 | 29.76 | 29.76 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.990 | 2.516 | 3.100 | 3.323 |
| Crosswalk LOS | C | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 425 | 425 | 450 | 525 |
| d_b, Bicycle Delay [s] | 24.81 | 24.81 | 24.03 | 21.76 |
| l_b,int, Bicycle LOS Score for Intersection | 2.621 | 2.395 | 2.031 | 3.430 |
| Bicycle LOS | B | B | B | C |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 4 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 2: Sellers Ave/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 49.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.385 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Ave | | Laurel Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 35.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | Yes | | Yes | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Ave | | Laurel Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 148 | 224 | 200 | 50 | 50 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 48 | 48 | 401 | 218 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 2 | 88 | 40 | 0 |
| Other Volume [veh/h] | 23 | 13 | 5 | 0 | 0 | 10 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 23 | 210 | 279 | 689 | 308 | 60 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 6 | 53 | 70 | 172 | 77 | 15 |
| Total Analysis Volume [veh/h] | 23 | 210 | 279 | 689 | 308 | 60 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 100 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fixed time |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protected | Permissive | Permissive | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 6 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | Lead | - | - | - | Lead | - |
| Minimum Green [s] | 5 | 5 | 5 | 0 | 5 | 0 |
| Maximum Green [s] | 30 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 35 | 31 | 65 | 0 | 69 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 5 | 5 | 0 | 5 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 10 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | No | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | No | | No | |
| Maximum Recall | No | No | No | | No | |
| Pedestrian Recall | No | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | R | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 169 | 169 | 169 | 169 | 169 | 169 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 31 | 27 | 61 | 61 | 65 | 65 |
| g / C, Green / Cycle | 0.18 | 0.16 | 0.36 | 0.36 | 0.38 | 0.38 |
| (v / s)_i Volume / Saturation Flow Rate | 0.01 | 0.07 | 0.17 | 0.27 | 0.10 | 0.04 |
| s, saturation flow rate [veh/h] | 1603 | 3204 | 1683 | 2532 | 3113 | 1431 |
| c, Capacity [veh/h] | 294 | 512 | 607 | 914 | 1197 | 550 |
| d1, Uniform Delay [s] | 57.16 | 63.84 | 41.37 | 47.41 | 35.51 | 33.40 |
| k, delay calibration | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.52 | 2.42 | 2.49 | 5.74 | 0.52 | 0.40 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.08 | 0.41 | 0.46 | 0.75 | 0.26 | 0.11 |
| d, Delay for Lane Group [s/veh] | 57.68 | 66.26 | 43.86 | 53.15 | 36.03 | 33.80 |
| Lane Group LOS | E | E | D | D | D | C |
| Critical Lane Group | Yes | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.85 | 4.18 | 9.19 | 13.13 | 4.49 | 1.68 |
| 50th-Percentile Queue Length [ft/ln] | 21.21 | 104.46 | 229.63 | 328.29 | 112.31 | 41.89 |
| 95th-Percentile Queue Length [veh/ln] | 1.53 | 7.52 | 14.16 | 19.07 | 7.97 | 3.02 |
| 95th-Percentile Queue Length [ft/ln] | 38.18 | 188.02 | 353.89 | 476.86 | 199.21 | 75.40 |

**Movement, Approach, & Intersection Results**

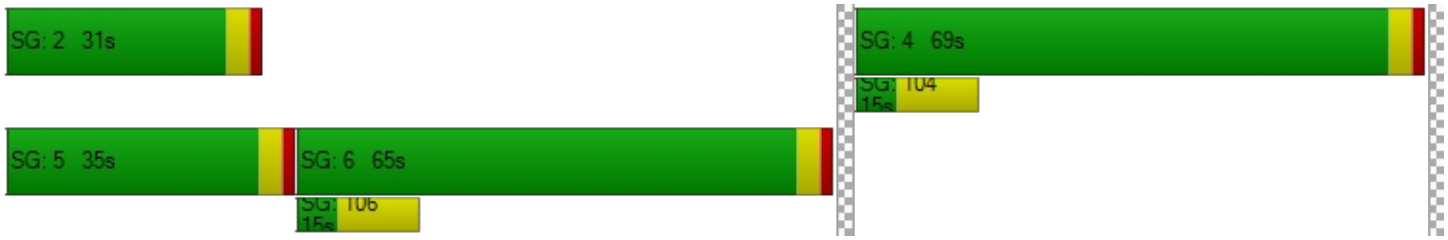
| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 57.68 | 66.26 | 43.86 | 53.15 | 36.03 | 33.80 |
| Movement LOS | E | E | D | D | D | C |
| d_A, Approach Delay [s/veh] | 65.42 | | 50.47 | | 35.67 | |
| Approach LOS | E | | D | | D | |
| d_I, Intersection Delay [s/veh] | 49.22 | | | | | |
| Intersection LOS | D | | | | | |
| Intersection V/C | 0.385 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 9.0 | 9.0 | 9.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 41.41 | 41.41 | 41.41 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.370 | 2.789 | 2.552 |
| Crosswalk LOS | B | C | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 540 | 1220 | 1300 |
| d_b, Bicycle Delay [s] | 26.65 | 7.61 | 6.13 |
| l_b,int, Bicycle LOS Score for Intersection | 1.752 | 3.157 | 1.560 |
| Bicycle LOS | A | C | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Sellers Rd/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 10.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.335 |

**Intersection Setup**

| Name | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 40.00 | | | 40.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 33 | 86 | 36 | 3 | 142 | 15 | 13 | 63 | 41 | 38 | 63 | 3 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 1 | 1 | 49 | 0 | 8 | 37 | 12 | 0 | 3 | 120 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 1 | 0 | 0 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 34 | 89 | 85 | 3 | 153 | 59 | 25 | 63 | 44 | 158 | 63 | 3 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 9 | 22 | 21 | 1 | 38 | 15 | 6 | 16 | 11 | 40 | 16 | 1 |
| Total Analysis Volume [veh/h] | 34 | 89 | 85 | 3 | 153 | 59 | 25 | 63 | 44 | 158 | 63 | 3 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | |
|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 715 | 710 | 686 | 669 |
| Degree of Utilization, x | 0.29 | 0.30 | 0.19 | 0.33 |

**Movement, Approach, & Intersection Results**

| | | | | |
|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 1.21 | 1.28 | 0.71 | 1.47 |
| 95th-Percentile Queue Length [ft] | 30.17 | 31.91 | 17.69 | 36.77 |
| Approach Delay [s/veh] | 10.08 | 10.26 | 9.50 | 11.06 |
| Approach LOS | B | B | A | B |
| Intersection Delay [s/veh] | 10.31 | | | |
| Intersection LOS | B | | | |

**Intersection Level Of Service Report**
**Intersection 4: Sellers Rd/Project Access 1**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.031 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Rd | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Rd | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 148 | 224 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 48 | 48 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 2 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 18 | 8 | 7 | 18 | 4 |
| Total Hourly Volume [veh/h] | 0 | 215 | 282 | 7 | 18 | 4 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 54 | 71 | 2 | 5 | 1 |
| Total Analysis Volume [veh/h] | 0 | 215 | 282 | 7 | 18 | 4 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 |
| d_M, Delay for Movement [s/veh] | 7.84 | 0.00 | 0.00 | 0.00 | 11.38 | 9.32 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.11 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 2.75 | 2.75 |
| d_A, Approach Delay [s/veh] | 0.00 | | 0.00 | | 11.00 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.46 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 5: Sellers Rd/Project Access 2**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.030 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Rd | | Project Access 2 | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Rd | | Project Access 2 | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 148 | 224 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 48 | 48 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 2 | 0 | 0 | 0 |
| Other Volume [veh/h] | 1 | 0 | 4 | 8 | 18 | 4 |
| Total Hourly Volume [veh/h] | 1 | 197 | 278 | 8 | 18 | 4 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 49 | 70 | 2 | 5 | 1 |
| Total Analysis Volume [veh/h] | 1 | 197 | 278 | 8 | 18 | 4 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 |
| d_M, Delay for Movement [s/veh] | 7.83 | 0.00 | 0.00 | 0.00 | 11.29 | 9.30 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.11 |
| 95th-Percentile Queue Length [ft/ln] | 0.06 | 0.03 | 0.00 | 0.00 | 2.71 | 2.71 |
| d_A, Approach Delay [s/veh] | 0.04 | | 0.00 | | 10.93 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.49 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 6: Main St/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 53.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.804 |

**Intersection Setup**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 305.00 | 100.00 | 1150.00 | 215.00 | 100.00 | 215.00 | 160.00 | 100.00 | 160.00 | 240.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 49.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | | 40.00 | | | 40.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 107 | 298 | 141 | 61 | 465 | 14 | 126 | 106 | 101 | 176 | 362 | 104 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 30 | 39 | 6 | 9 | 29 | 295 | 18 | 222 | 20 | 21 | 360 | 64 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 36 | 4 | 6 | 1 | 2 | 0 | 2 | 33 | 0 | 17 | 64 | 7 |
| Other Volume [veh/h] | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 23 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 173 | 341 | 155 | 71 | 496 | 309 | 146 | 369 | 121 | 214 | 809 | 175 |
| Peak Hour Factor | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.9000 | 0.9000 | 0.9000 | 0.6700 | 0.6700 | 0.6700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 54 | 107 | 48 | 22 | 155 | 97 | 41 | 103 | 34 | 80 | 302 | 65 |
| Total Analysis Volume [veh/h] | 216 | 426 | 194 | 89 | 620 | 386 | 162 | 410 | 134 | 319 | 1207 | 261 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 2 | | | 0 | | | 2 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 2 | | | 0 | | | 2 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 1 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 140 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fully actuated |
| Offset [s] | 108.0 |
| Offset Reference | Lagging Force-Off |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 0 | 1 | 6 | 0 | 7 | 4 | 0 | 3 | 8 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 6 | 10 | 0 | 6 | 10 | 0 | 6 | 6 | 0 | 6 | 6 | 0 |
| Maximum Green [s] | 11 | 33 | 0 | 11 | 33 | 0 | 14 | 35 | 0 | 18 | 39 | 0 |
| Amber [s] | 3.0 | 4.5 | 0.0 | 3.0 | 4.5 | 0.0 | 3.0 | 4.4 | 0.0 | 3.0 | 4.1 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 22 | 40 | 0 | 22 | 40 | 0 | 22 | 39 | 0 | 39 | 56 | 0 |
| Vehicle Extension [s] | 2.0 | 3.0 | 0.0 | 2.0 | 3.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 18 | 0 | 0 | 24 | 0 | 0 | 26 | 0 | 0 | 30 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 3.5 | 0.0 | 2.0 | 3.5 | 0.0 | 2.0 | 3.4 | 0.0 | 2.0 | 3.1 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | Yes | | No | Yes | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | R | L | C | R | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 |
| L, Total Lost Time per Cycle [s] | 4.00 | 5.50 | 5.50 | 4.00 | 5.50 | 5.50 | 4.00 | 5.40 | 5.40 | 4.00 | 5.10 | 5.10 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 3.50 | 3.50 | 2.00 | 3.50 | 3.50 | 2.00 | 3.40 | 3.40 | 2.00 | 3.10 | 3.10 |
| g_i, Effective Green Time [s] | 18 | 48 | 48 | 9 | 39 | 39 | 15 | 37 | 37 | 27 | 50 | 50 |
| g / C, Green / Cycle | 0.13 | 0.34 | 0.34 | 0.06 | 0.28 | 0.28 | 0.10 | 0.27 | 0.27 | 0.19 | 0.36 | 0.36 |
| (v / s)_i Volume / Saturation Flow Rate | 0.12 | 0.18 | 0.18 | 0.05 | 0.18 | 0.25 | 0.09 | 0.12 | 0.09 | 0.18 | 0.34 | 0.17 |
| s, saturation flow rate [veh/h] | 1767 | 1855 | 1661 | 1767 | 3532 | 1557 | 1767 | 3532 | 1570 | 1767 | 3532 | 1577 |
| c, Capacity [veh/h] | 227 | 637 | 571 | 110 | 979 | 432 | 185 | 941 | 418 | 341 | 1261 | 563 |
| d1, Uniform Delay [s] | 60.56 | 36.60 | 36.61 | 64.79 | 44.32 | 48.38 | 61.76 | 42.60 | 41.16 | 55.60 | 43.95 | 34.67 |
| k, delay calibration | 0.37 | 0.50 | 0.50 | 0.04 | 0.50 | 0.50 | 0.17 | 0.04 | 0.04 | 0.21 | 0.04 | 0.04 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 40.47 | 2.94 | 3.29 | 5.30 | 3.11 | 23.59 | 17.93 | 0.12 | 0.16 | 19.21 | 2.30 | 0.22 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.95 | 0.51 | 0.51 | 0.81 | 0.63 | 0.89 | 0.88 | 0.44 | 0.32 | 0.94 | 0.96 | 0.46 |
| d, Delay for Lane Group [s/veh] | 101.03 | 39.53 | 39.90 | 70.10 | 47.43 | 71.97 | 79.69 | 42.72 | 41.32 | 74.81 | 46.25 | 34.89 |
| Lane Group LOS | F | D | D | E | D | E | E | D | D | E | D | C |
| Critical Lane Group | Yes | No | No | No | No | Yes | Yes | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 10.07 | 9.32 | 8.43 | 3.27 | 9.74 | 15.49 | 6.53 | 5.86 | 3.71 | 12.82 | 20.47 | 6.88 |
| 50th-Percentile Queue Length [ft/ln] | 251.63 | 233.11 | 210.63 | 81.64 | 243.45 | 387.25 | 163.31 | 146.42 | 92.68 | 320.43 | 511.64 | 171.97 |
| 95th-Percentile Queue Length [veh/ln] | 15.27 | 14.33 | 13.19 | 5.88 | 14.86 | 21.94 | 10.72 | 9.83 | 6.67 | 18.69 | 27.88 | 11.18 |
| 95th-Percentile Queue Length [ft/ln] | 381.71 | 358.31 | 329.63 | 146.96 | 371.40 | 548.62 | 268.10 | 245.64 | 166.83 | 467.21 | 697.12 | 279.51 |

**Movement, Approach, & Intersection Results**

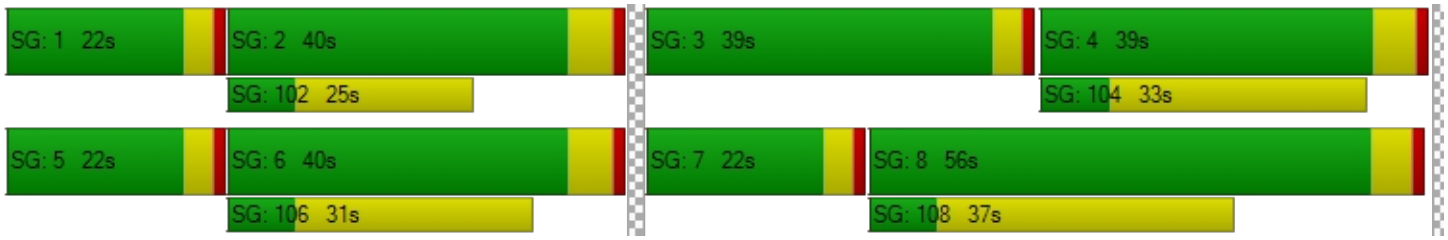
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 101.03 | 39.62 | 39.90 | 70.10 | 47.43 | 71.97 | 79.69 | 42.72 | 41.32 | 74.81 | 46.25 | 34.89 |
| Movement LOS | F | D | D | E | D | E | E | D | D | E | D | C |
| d_A, Approach Delay [s/veh] | 55.55 | | | 57.92 | | | 50.94 | | | 49.69 | | |
| Approach LOS | E | | | E | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 53.03 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.804 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 1527.60 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 59.43 | 59.43 | 59.43 | 59.43 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.817 | 2.895 | 3.019 | 2.944 |
| Crosswalk LOS | C | C | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 493 | 493 | 480 | 727 |
| d_b, Bicycle Delay [s] | 39.75 | 39.77 | 40.43 | 28.35 |
| l_b,int, Bicycle LOS Score for Intersection | 2.249 | 2.463 | 2.142 | 3.034 |
| Bicycle LOS | B | B | B | C |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main St/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 12.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.434 |

**Intersection Setup**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 1 | 1 | 0 | 0 | 1 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 95.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | 40.00 | | 40.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | No | | No | | No | |

**Volumes**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 348 | 66 | 151 | 569 | 51 | 190 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 14 | 5 | 11 | 47 | 14 | 24 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 8 | 0 | 0 | 24 | 0 | 0 |
| Other Volume [veh/h] | 2 | 0 | 0 | 0 | 7 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 372 | 71 | 162 | 640 | 72 | 214 |
| Peak Hour Factor | 0.9000 | 0.9000 | 0.7800 | 0.7800 | 0.8600 | 0.8600 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 103 | 20 | 52 | 205 | 21 | 62 |
| Total Analysis Volume [veh/h] | 413 | 79 | 208 | 821 | 84 | 249 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Free Running |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Permissive | Permissive | Protected | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 6 | 0 | 5 | 2 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | - | - | Lead | - | Lead | - |
| Minimum Green [s] | 5 | 0 | 5 | 5 | 5 | 0 |
| Maximum Green [s] | 30 | 0 | 30 | 60 | 30 | 0 |
| Amber [s] | 4.4 | 0.0 | 3.0 | 4.4 | 4.4 | 0.0 |
| All red [s] | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 0 | 0 | 0 | 0 | 0 | 0 |
| Vehicle Extension [s] | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 5 | 0 | 0 | 5 | 5 | 0 |
| Pedestrian Clearance [s] | 10 | 0 | 0 | 10 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | No | | | No | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 3.4 | 0.0 | 2.0 | 3.4 | 3.4 | 0.0 |
| Minimum Recall | No | | No | No | No | |
| Maximum Recall | No | | No | No | No | |
| Pedestrian Recall | No | | No | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | C | R | L | C | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 37 | 37 | 37 | 37 | 37 | 37 |
| L, Total Lost Time per Cycle [s] | 5.40 | 5.40 | 4.00 | 5.40 | 5.40 | 5.40 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 3.40 | 3.40 | 2.00 | 3.40 | 3.40 | 3.40 |
| g_i, Effective Green Time [s] | 7 | 7 | 6 | 18 | 9 | 9 |
| g / C, Green / Cycle | 0.20 | 0.20 | 0.17 | 0.48 | 0.23 | 0.23 |
| (v / s)_i Volume / Saturation Flow Rate | 0.13 | 0.06 | 0.13 | 0.26 | 0.05 | 0.17 |
| s, saturation flow rate [veh/h] | 3197 | 1427 | 1599 | 3197 | 1599 | 1427 |
| c, Capacity [veh/h] | 642 | 287 | 271 | 1528 | 372 | 332 |
| d1, Uniform Delay [s] | 13.68 | 12.61 | 14.78 | 6.84 | 11.59 | 13.30 |
| k, delay calibration | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 1.08 | 0.51 | 4.51 | 0.30 | 0.30 | 3.41 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.64 | 0.28 | 0.77 | 0.54 | 0.23 | 0.75 |
| d, Delay for Lane Group [s/veh] | 14.76 | 13.12 | 19.30 | 7.14 | 11.90 | 16.71 |
| Lane Group LOS | B | B | B | A | B | B |
| Critical Lane Group | Yes | No | Yes | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 1.26 | 0.45 | 1.59 | 1.20 | 0.44 | 1.70 |
| 50th-Percentile Queue Length [ft/ln] | 31.58 | 11.31 | 39.86 | 30.03 | 10.97 | 42.50 |
| 95th-Percentile Queue Length [veh/ln] | 2.27 | 0.81 | 2.87 | 2.16 | 0.79 | 3.06 |
| 95th-Percentile Queue Length [ft/ln] | 56.85 | 20.36 | 71.75 | 54.05 | 19.75 | 76.51 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 14.76 | 13.12 | 19.30 | 7.14 | 11.90 | 16.71 |
| Movement LOS | B | B | B | A | B | B |
| d_A, Approach Delay [s/veh] | 14.50 | | 9.60 | | 15.50 | |
| Approach LOS | B | | A | | B | |
| d_I, Intersection Delay [s/veh] | 11.96 | | | | | |
| Intersection LOS | B | | | | | |
| Intersection V/C | 0.434 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 0.0 | 0.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 0.00 | 0.00 |
| l_p,int, Pedestrian LOS Score for Intersection | 0.000 | 0.000 | 0.000 |
| Crosswalk LOS | F | F | F |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 667 | 1333 | 667 |
| d_b, Bicycle Delay [s] | 20.00 | 5.00 | 20.00 |
| l_b,int, Bicycle LOS Score for Intersection | 1.966 | 2.409 | 1.560 |
| Bicycle LOS | A | B | A |

## Sequence

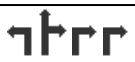
| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 1: Sellers Rd/E Cypress Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 37.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.679 |

**Intersection Setup**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 150.00 | 100.00 | 150.00 | 110.00 | 100.00 | 100.00 | 185.00 | 100.00 | 185.00 | 250.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 45.00 | | | 50.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 86 | 2 | 106 | 3 | 0 | 10 | 1 | 379 | 7 | 218 | 133 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 54 | 98 | 679 | 1 | 25 | 125 | 127 | 463 | 61 | 97 | 566 | 1 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 16 | 16 | 1 | 10 | 16 | 52 | 53 | 148 | 15 | 1 | 94 | 11 |
| Other Volume [veh/h] | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 165 | 116 | 786 | 14 | 41 | 187 | 181 | 990 | 97 | 316 | 793 | 12 |
| Peak Hour Factor | 0.8400 | 0.8400 | 0.8400 | 0.6500 | 0.6500 | 0.6500 | 0.9200 | 0.9200 | 0.9200 | 0.9100 | 0.9100 | 0.9100 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 49 | 35 | 234 | 5 | 16 | 72 | 49 | 269 | 26 | 87 | 218 | 3 |
| Total Analysis Volume [veh/h] | 196 | 138 | 936 | 22 | 63 | 288 | 197 | 1076 | 105 | 347 | 871 | 13 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 1 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 120 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Split | Split | Split | Split | Split | Split | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 0 | 8 | 0 | 0 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | - | - | - | - | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 0 | 5 | 0 | 0 | 5 | 0 | 5 | 5 | 0 | 5 | 5 | 0 |
| Maximum Green [s] | 0 | 30 | 0 | 0 | 30 | 0 | 30 | 60 | 0 | 30 | 60 | 0 |
| Amber [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 4.0 | 0.0 | 3.0 | 4.0 | 0.0 |
| All red [s] | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 2.0 | 0.0 | 1.0 | 2.0 | 0.0 |
| Split [s] | 0 | 43 | 0 | 0 | 21 | 0 | 12 | 32 | 0 | 24 | 44 | 0 |
| Vehicle Extension [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Minimum Recall | | No | | | No | | No | No | | No | No | |
| Maximum Recall | | No | | | No | | No | No | | No | No | |
| Pedestrian Recall | | No | | | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | C | R | L | C | C | L | C | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 6.00 | 6.00 | 4.00 | 6.00 | 6.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 4.00 | 4.00 | 2.00 | 4.00 | 4.00 |
| g_i, Effective Green Time [s] | 27 | 27 | 27 | 13 | 13 | 13 | 26 | 26 | 12 | 25 | 25 |
| g / C, Green / Cycle | 0.28 | 0.28 | 0.28 | 0.13 | 0.13 | 0.13 | 0.27 | 0.27 | 0.13 | 0.26 | 0.26 |
| (v / s)_i Volume / Saturation Flow Rate | 0.11 | 0.23 | 0.25 | 0.05 | 0.10 | 0.11 | 0.22 | 0.23 | 0.10 | 0.17 | 0.17 |
| s, saturation flow rate [veh/h] | 1752 | 1652 | 2768 | 1816 | 2768 | 1752 | 3503 | 1751 | 3403 | 3503 | 1826 |
| c, Capacity [veh/h] | 493 | 465 | 779 | 239 | 364 | 236 | 942 | 471 | 443 | 925 | 482 |
| d1, Uniform Delay [s] | 27.80 | 32.26 | 32.82 | 37.81 | 40.23 | 40.30 | 32.95 | 32.99 | 40.27 | 31.03 | 31.03 |
| k, delay calibration | 0.11 | 0.27 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.52 | 9.22 | 3.49 | 0.90 | 3.88 | 7.50 | 2.04 | 4.07 | 3.09 | 0.71 | 1.35 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.40 | 0.83 | 0.88 | 0.36 | 0.79 | 0.83 | 0.84 | 0.84 | 0.78 | 0.63 | 0.63 |
| d, Delay for Lane Group [s/veh] | 28.32 | 41.48 | 36.31 | 38.71 | 44.11 | 47.80 | 34.99 | 37.05 | 43.36 | 31.74 | 32.39 |
| Lane Group LOS | C | D | D | D | D | D | C | D | D | C | C |
| Critical Lane Group | No | No | Yes | No | Yes | No | No | Yes | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 3.43 | 8.91 | 7.33 | 1.77 | 3.28 | 4.78 | 8.28 | 8.58 | 3.91 | 5.56 | 5.88 |
| 50th-Percentile Queue Length [ft/ln] | 85.83 | 222.72 | 183.20 | 44.29 | 82.05 | 119.62 | 206.90 | 214.45 | 97.66 | 138.93 | 147.03 |
| 95th-Percentile Queue Length [veh/ln] | 6.18 | 13.80 | 11.77 | 3.19 | 5.91 | 8.37 | 12.99 | 13.38 | 7.03 | 9.42 | 9.86 |
| 95th-Percentile Queue Length [ft/ln] | 154.50 | 345.10 | 294.18 | 79.72 | 147.69 | 209.30 | 324.85 | 334.53 | 175.80 | 235.58 | 246.46 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 28.32 | 41.48 | 37.64 | 38.71 | 38.71 | 44.11 | 47.80 | 35.54 | 37.05 | 43.36 | 31.96 | 32.39 |
| Movement LOS | C | D | D | D | D | D | D | D | D | D | C | C |
| d_A, Approach Delay [s/veh] | 36.66 | | | 42.88 | | | 37.41 | | | 35.17 | | |
| Approach LOS | D | | | D | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 37.02 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.679 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 49.50 | 49.50 | 49.50 | 49.50 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.950 | 2.548 | 3.179 | 3.402 |
| Crosswalk LOS | C | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 650 | 283 | 433 | 633 |
| d_b, Bicycle Delay [s] | 27.34 | 44.20 | 36.84 | 28.02 |
| l_b,int, Bicycle LOS Score for Intersection | 3.655 | 2.175 | 2.318 | 2.237 |
| Bicycle LOS | D | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 4 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 2: Sellers Ave/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 50.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.362 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Ave | | Laurel Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 35.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | Yes | | Yes | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Ave | | Laurel Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 194 | 75 | 150 | 25 | 25 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 186 | 134 | 35 | 645 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 1 | 6 | 10 | 0 |
| Other Volume [veh/h] | 16 | 9 | 15 | 0 | 0 | 34 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 16 | 390 | 225 | 191 | 680 | 59 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 4 | 98 | 56 | 48 | 170 | 15 |
| Total Analysis Volume [veh/h] | 16 | 390 | 225 | 191 | 680 | 59 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 120 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fixed time |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protected | Permissive | Permissive | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 6 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | Lead | - | - | - | Lead | - |
| Minimum Green [s] | 5 | 5 | 5 | 0 | 5 | 0 |
| Maximum Green [s] | 30 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 35 | 31 | 65 | 0 | 69 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 5 | 5 | 0 | 5 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 10 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | No | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | No | | No | |
| Maximum Recall | No | No | No | | No | |
| Pedestrian Recall | No | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | R | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 169 | 169 | 169 | 169 | 169 | 169 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 31 | 27 | 61 | 61 | 65 | 65 |
| g / C, Green / Cycle | 0.18 | 0.16 | 0.36 | 0.36 | 0.38 | 0.38 |
| (v / s)_i Volume / Saturation Flow Rate | 0.01 | 0.12 | 0.13 | 0.08 | 0.22 | 0.04 |
| s, saturation flow rate [veh/h] | 1603 | 3204 | 1683 | 2532 | 3113 | 1431 |
| c, Capacity [veh/h] | 294 | 512 | 607 | 914 | 1197 | 550 |
| d1, Uniform Delay [s] | 56.91 | 67.92 | 39.83 | 37.32 | 40.94 | 33.38 |
| k, delay calibration | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.35 | 10.26 | 1.73 | 0.52 | 1.96 | 0.39 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.05 | 0.76 | 0.37 | 0.21 | 0.57 | 0.11 |
| d, Delay for Lane Group [s/veh] | 57.26 | 78.19 | 41.57 | 37.84 | 42.90 | 33.77 |
| Lane Group LOS | E | E | D | D | D | C |
| Critical Lane Group | Yes | No | Yes | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.59 | 8.65 | 7.10 | 2.77 | 11.54 | 1.65 |
| 50th-Percentile Queue Length [ft/ln] | 14.67 | 216.13 | 177.47 | 69.32 | 288.50 | 41.16 |
| 95th-Percentile Queue Length [veh/ln] | 1.06 | 13.47 | 11.47 | 4.99 | 17.11 | 2.96 |
| 95th-Percentile Queue Length [ft/ln] | 26.41 | 336.68 | 286.71 | 124.78 | 427.78 | 74.09 |

**Movement, Approach, & Intersection Results**

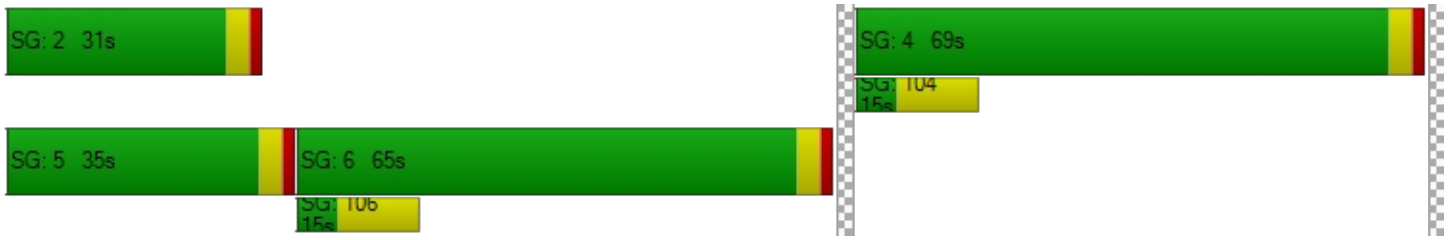
| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 57.26 | 78.19 | 41.57 | 37.84 | 42.90 | 33.77 |
| Movement LOS | E | E | D | D | D | C |
| d_A, Approach Delay [s/veh] | 77.36 | | 39.86 | | 42.17 | |
| Approach LOS | E | | D | | D | |
| d_I, Intersection Delay [s/veh] | 50.71 | | | | | |
| Intersection LOS | D | | | | | |
| Intersection V/C | 0.362 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 9.0 | 9.0 | 9.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 51.34 | 51.34 | 51.34 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.427 | 2.798 | 2.530 |
| Crosswalk LOS | B | C | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 450 | 1017 | 1083 |
| d_b, Bicycle Delay [s] | 36.04 | 14.50 | 12.60 |
| l_b,int, Bicycle LOS Score for Intersection | 1.895 | 2.246 | 1.560 |
| Bicycle LOS | A | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Sellers Rd/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 19.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.778 |

**Intersection Setup**

| Name | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 40.00 | | | 40.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 88 | 203 | 51 | 13 | 149 | 22 | 34 | 113 | 52 | 43 | 85 | 21 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 4 | 132 | 0 | 0 | 77 | 21 | 41 | 0 | 2 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 1 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 92 | 337 | 51 | 13 | 228 | 47 | 75 | 113 | 54 | 43 | 85 | 21 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 23 | 84 | 13 | 3 | 57 | 12 | 19 | 28 | 14 | 11 | 21 | 5 |
| Total Analysis Volume [veh/h] | 92 | 337 | 51 | 13 | 228 | 47 | 75 | 113 | 54 | 43 | 85 | 21 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | |
|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 616 | 586 | 549 | 524 |
| Degree of Utilization, x | 0.78 | 0.49 | 0.44 | 0.28 |

**Movement, Approach, & Intersection Results**

| | | | | |
|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 7.36 | 2.70 | 2.23 | 1.16 |
| 95th-Percentile Queue Length [ft] | 184.10 | 67.46 | 55.77 | 29.07 |
| Approach Delay [s/veh] | 26.29 | 14.91 | 14.60 | 12.58 |
| Approach LOS | D | B | B | B |
| Intersection Delay [s/veh] | 19.26 | | | |
| Intersection LOS | C | | | |

**Intersection Level Of Service Report**
**Intersection 4: Sellers Rd/Project Access 1**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.024 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Rd | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Rd | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 194 | 75 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 186 | 134 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 1 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 12 | 24 | 25 | 13 | 3 |
| Total Hourly Volume [veh/h] | 0 | 393 | 234 | 25 | 13 | 3 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 98 | 59 | 6 | 3 | 1 |
| Total Analysis Volume [veh/h] | 0 | 393 | 234 | 25 | 13 | 3 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 |
| d_M, Delay for Movement [s/veh] | 7.76 | 0.00 | 0.00 | 0.00 | 11.80 | 9.19 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.08 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 2.10 | 2.10 |
| d_A, Approach Delay [s/veh] | 0.00 | | 0.00 | | 11.31 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.27 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 5: Sellers Rd/Project Access 2**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.021 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Rd | | | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Rd | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 194 | 75 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 186 | 134 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 1 | 0 | 0 | 0 |
| Other Volume [veh/h] | 1 | 0 | 3 | 24 | 12 | 2 |
| Total Hourly Volume [veh/h] | 1 | 381 | 213 | 24 | 12 | 2 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 95 | 53 | 6 | 3 | 1 |
| Total Analysis Volume [veh/h] | 1 | 381 | 213 | 24 | 12 | 2 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 |
| d_M, Delay for Movement [s/veh] | 7.71 | 0.00 | 0.00 | 0.00 | 11.54 | 9.10 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.07 |
| 95th-Percentile Queue Length [ft/ln] | 0.06 | 0.03 | 0.00 | 0.00 | 1.80 | 1.80 |
| d_A, Approach Delay [s/veh] | 0.02 | | 0.00 | | 11.19 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.26 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 6: Main St/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 52.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.666 |

**Intersection Setup**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 305.00 | 100.00 | 1150.00 | 215.00 | 100.00 | 215.00 | 160.00 | 100.00 | 160.00 | 240.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 49.21 | 0.00 | 0.00 | 49.21 | 0.00 | 0.00 | 49.21 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | | 40.00 | | | 40.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 136 | 345 | 119 | 95 | 326 | 29 | 140 | 187 | 123 | 58 | 245 | 57 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 32 | 45 | 14 | 28 | 59 | 265 | 76 | 659 | 42 | 2 | 50 | 16 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 24 | 22 | 0 | 4 | 18 | 47 | 83 | 6 | 40 | 0 | 2 | 4 |
| Other Volume [veh/h] | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 27 | 0 | 0 | 16 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 192 | 412 | 140 | 127 | 403 | 341 | 299 | 879 | 205 | 60 | 313 | 77 |
| Peak Hour Factor | 0.8900 | 0.8900 | 0.8900 | 0.8800 | 0.8800 | 0.8800 | 0.9600 | 0.9600 | 0.9600 | 0.8800 | 0.8800 | 0.8800 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 54 | 116 | 39 | 36 | 114 | 97 | 78 | 229 | 53 | 17 | 89 | 22 |
| Total Analysis Volume [veh/h] | 216 | 463 | 157 | 144 | 458 | 388 | 311 | 916 | 214 | 68 | 356 | 88 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 1 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 1 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 1 | | | 0 | | | 0 | | | 1 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 1 | | | 0 | | | 0 | | | 1 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 1 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 140 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fully actuated |
| Offset [s] | 108.0 |
| Offset Reference | Lagging Force-Off |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 0 | 1 | 6 | 0 | 7 | 4 | 0 | 3 | 8 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 6 | 10 | 0 | 6 | 10 | 0 | 6 | 6 | 0 | 6 | 6 | 0 |
| Maximum Green [s] | 11 | 33 | 0 | 11 | 33 | 0 | 14 | 35 | 0 | 18 | 39 | 0 |
| Amber [s] | 3.0 | 4.5 | 0.0 | 3.0 | 4.5 | 0.0 | 3.0 | 4.4 | 0.0 | 3.0 | 4.1 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 33 | 33 | 0 | 37 | 37 | 0 | 27 | 59 | 0 | 11 | 43 | 0 |
| Vehicle Extension [s] | 2.0 | 3.0 | 0.0 | 2.0 | 3.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 18 | 0 | 0 | 24 | 0 | 0 | 26 | 0 | 0 | 30 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 3.5 | 0.0 | 2.0 | 3.5 | 0.0 | 2.0 | 3.4 | 0.0 | 2.0 | 3.1 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | Yes | | No | Yes | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | R | L | C | R | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 |
| L, Total Lost Time per Cycle [s] | 4.00 | 5.50 | 5.50 | 4.00 | 5.50 | 5.50 | 4.00 | 5.40 | 5.40 | 4.00 | 5.10 | 5.10 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 3.50 | 3.50 | 2.00 | 3.50 | 3.50 | 2.00 | 3.40 | 3.40 | 2.00 | 3.10 | 3.10 |
| g_i, Effective Green Time [s] | 19 | 62 | 62 | 13 | 57 | 57 | 23 | 39 | 39 | 7 | 23 | 23 |
| g / C, Green / Cycle | 0.14 | 0.45 | 0.45 | 0.09 | 0.41 | 0.41 | 0.16 | 0.28 | 0.28 | 0.05 | 0.16 | 0.16 |
| (v / s)_i Volume / Saturation Flow Rate | 0.12 | 0.17 | 0.17 | 0.08 | 0.13 | 0.25 | 0.18 | 0.26 | 0.14 | 0.04 | 0.10 | 0.06 |
| s, saturation flow rate [veh/h] | 1767 | 1855 | 1695 | 1767 | 3532 | 1577 | 1767 | 3532 | 1575 | 1767 | 3532 | 1556 |
| c, Capacity [veh/h] | 238 | 828 | 757 | 167 | 1436 | 641 | 288 | 971 | 433 | 86 | 575 | 253 |
| d1, Uniform Delay [s] | 59.65 | 25.94 | 25.95 | 62.41 | 28.30 | 32.66 | 58.49 | 49.62 | 42.53 | 65.77 | 54.51 | 51.91 |
| k, delay calibration | 0.09 | 0.50 | 0.50 | 0.04 | 0.50 | 0.50 | 0.49 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 10.48 | 1.39 | 1.52 | 5.03 | 0.59 | 4.21 | 74.67 | 2.28 | 0.33 | 5.85 | 0.41 | 0.30 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.91 | 0.39 | 0.39 | 0.86 | 0.32 | 0.61 | 1.08 | 0.94 | 0.49 | 0.79 | 0.62 | 0.35 |
| d, Delay for Lane Group [s/veh] | 70.12 | 27.32 | 27.47 | 67.44 | 28.88 | 36.87 | 133.16 | 51.90 | 42.85 | 71.62 | 54.92 | 52.21 |
| Lane Group LOS | E | C | C | E | C | D | F | D | D | E | D | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | No | Yes | No | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 8.14 | 7.45 | 6.85 | 5.23 | 5.32 | 10.92 | 16.03 | 15.66 | 6.19 | 2.53 | 5.86 | 2.77 |
| 50th-Percentile Queue Length [ft/ln] | 203.54 | 186.20 | 171.35 | 130.64 | 132.90 | 272.95 | 400.81 | 391.45 | 154.65 | 63.37 | 146.50 | 69.13 |
| 95th-Percentile Queue Length [veh/ln] | 12.82 | 11.92 | 11.15 | 8.97 | 9.10 | 16.34 | 23.46 | 22.15 | 10.26 | 4.56 | 9.83 | 4.98 |
| 95th-Percentile Queue Length [ft/ln] | 320.53 | 298.09 | 278.69 | 224.36 | 227.43 | 408.43 | 586.60 | 553.69 | 256.62 | 114.07 | 245.75 | 124.43 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 70.12 | 27.37 | 27.47 | 67.44 | 28.88 | 36.87 | 133.16 | 51.90 | 42.85 | 71.62 | 54.92 | 52.21 |
| Movement LOS | E | C | C | E | C | D | F | D | D | E | D | D |
| d_A, Approach Delay [s/veh] | 38.43 | | | 37.62 | | | 68.10 | | | 56.67 | | |
| Approach LOS | D | | | D | | | E | | | E | | |
| d_I, Intersection Delay [s/veh] | 52.00 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.666 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 5111.22 | 0.00 | 0.00 | 2620.88 |
| d_p, Pedestrian Delay [s] | 59.43 | 59.43 | 59.43 | 59.43 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.731 | 2.875 | 2.994 | 2.802 |
| Crosswalk LOS | B | C | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 393 | 450 | 766 | 541 |
| d_b, Bicycle Delay [s] | 45.20 | 42.04 | 26.66 | 37.25 |
| l_b,int, Bicycle LOS Score for Intersection | 2.249 | 2.376 | 2.748 | 1.982 |
| Bicycle LOS | B | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main St/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 8.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.325 |

**Intersection Setup**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 1 | 1 | 0 | 0 | 1 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 95.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 1 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | 40.00 | | 40.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | No | | No | | No | |

**Volumes**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 562 | 98 | 112 | 445 | 1 | 2 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 54 | 16 | 28 | 31 | 9 | 16 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 26 | 0 | 0 | 16 | 0 | 0 |
| Other Volume [veh/h] | 7 | 0 | 0 | 0 | 4 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 649 | 114 | 140 | 492 | 14 | 18 |
| Peak Hour Factor | 0.9400 | 0.9400 | 0.9100 | 0.9100 | 0.9500 | 0.9500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 173 | 30 | 38 | 135 | 4 | 5 |
| Total Analysis Volume [veh/h] | 690 | 121 | 154 | 541 | 15 | 19 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Free Running |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Permissive | Permissive | Protected | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 6 | 0 | 5 | 2 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | - | - | Lead | - | Lead | - |
| Minimum Green [s] | 5 | 0 | 5 | 5 | 5 | 0 |
| Maximum Green [s] | 30 | 0 | 30 | 60 | 30 | 0 |
| Amber [s] | 4.4 | 0.0 | 3.0 | 4.4 | 4.4 | 0.0 |
| All red [s] | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 0 | 0 | 0 | 0 | 0 | 0 |
| Vehicle Extension [s] | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 5 | 0 | 0 | 5 | 5 | 0 |
| Pedestrian Clearance [s] | 10 | 0 | 0 | 10 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | No | | | No | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 3.4 | 0.0 | 2.0 | 3.4 | 3.4 | 0.0 |
| Minimum Recall | No | | No | No | No | |
| Maximum Recall | No | | No | No | No | |
| Pedestrian Recall | No | | No | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | C | R | L | C | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 29 | 29 | 29 | 29 | 29 | 29 |
| L, Total Lost Time per Cycle [s] | 5.40 | 5.40 | 4.00 | 5.40 | 5.40 | 5.40 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 3.40 | 3.40 | 2.00 | 3.40 | 3.40 | 3.40 |
| g_i, Effective Green Time [s] | 9 | 9 | 4 | 17 | 1 | 1 |
| g / C, Green / Cycle | 0.32 | 0.32 | 0.12 | 0.59 | 0.04 | 0.04 |
| (v / s)_i Volume / Saturation Flow Rate | 0.22 | 0.08 | 0.10 | 0.17 | 0.01 | 0.01 |
| s, saturation flow rate [veh/h] | 3197 | 1427 | 1599 | 3197 | 1599 | 1427 |
| c, Capacity [veh/h] | 1040 | 464 | 200 | 1878 | 67 | 60 |
| d1, Uniform Delay [s] | 8.47 | 7.26 | 12.35 | 2.99 | 13.51 | 13.56 |
| k, delay calibration | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.73 | 0.30 | 6.09 | 0.08 | 1.65 | 2.96 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.66 | 0.26 | 0.77 | 0.29 | 0.22 | 0.32 |
| d, Delay for Lane Group [s/veh] | 9.20 | 7.55 | 18.44 | 3.07 | 15.16 | 16.53 |
| Lane Group LOS | A | A | B | A | B | B |
| Critical Lane Group | Yes | No | Yes | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 1.04 | 0.32 | 0.98 | 0.02 | 0.10 | 0.13 |
| 50th-Percentile Queue Length [ft/ln] | 25.94 | 7.95 | 24.38 | 0.55 | 2.44 | 3.36 |
| 95th-Percentile Queue Length [veh/ln] | 1.87 | 0.57 | 1.76 | 0.04 | 0.18 | 0.24 |
| 95th-Percentile Queue Length [ft/ln] | 46.69 | 14.31 | 43.89 | 0.98 | 4.39 | 6.04 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 9.20 | 7.55 | 18.44 | 3.07 | 15.16 | 16.53 |
| Movement LOS | A | A | B | A | B | B |
| d_A, Approach Delay [s/veh] | 8.96 | | 6.47 | | 15.92 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 7.99 | | | | | |
| Intersection LOS | A | | | | | |
| Intersection V/C | 0.325 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 0.0 | 0.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 0.00 | 0.00 |
| l_p,int, Pedestrian LOS Score for Intersection | 0.000 | 0.000 | 0.000 |
| Crosswalk LOS | F | F | F |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 667 | 1333 | 667 |
| d_b, Bicycle Delay [s] | 20.00 | 5.00 | 20.00 |
| l_b,int, Bicycle LOS Score for Intersection | 2.229 | 2.133 | 1.560 |
| Bicycle LOS | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



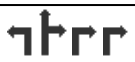
# Appendix F

## Background plus Project Conditions Mitigated LOS Reports

**Intersection Level Of Service Report**
**Intersection 1: Sellers Rd/E Cypress Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 45.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.751 |

**Intersection Setup**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 150.00 | 100.00 | 150.00 | 110.00 | 100.00 | 100.00 | 185.00 | 100.00 | 185.00 | 250.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 45.00 | | | 50.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 96 | 5 | 47 | 1 | 2 | 8 | 11 | 289 | 127 | 295 | 301 | 1 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 69 | 52 | 167 | 7 | 205 | 85 | 21 | 152 | 32 | 214 | 640 | 5 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 9 | 10 | 27 | 5 | 8 | 28 | 29 | 21 | 8 | 79 | 46 | 6 |
| Other Volume [veh/h] | 12 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 186 | 67 | 242 | 13 | 215 | 121 | 61 | 462 | 172 | 588 | 987 | 12 |
| Peak Hour Factor | 0.7700 | 0.7700 | 0.7700 | 0.6900 | 0.6900 | 0.6900 | 0.8100 | 0.8100 | 0.8100 | 0.7000 | 0.7000 | 0.7000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 60 | 22 | 79 | 5 | 78 | 44 | 19 | 143 | 53 | 210 | 353 | 4 |
| Total Analysis Volume [veh/h] | 242 | 87 | 314 | 19 | 312 | 175 | 75 | 570 | 212 | 840 | 1410 | 17 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 80 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Split | Split | Split | Split | Split | Split | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 0 | 8 | 0 | 0 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | - | - | - | - | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 0 | 5 | 0 | 0 | 5 | 0 | 5 | 5 | 0 | 5 | 5 | 0 |
| Maximum Green [s] | 0 | 30 | 0 | 0 | 30 | 0 | 30 | 60 | 0 | 30 | 60 | 0 |
| Amber [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 4.0 | 0.0 | 3.0 | 4.0 | 0.0 |
| All red [s] | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 2.0 | 0.0 | 1.0 | 2.0 | 0.0 |
| Split [s] | 0 | 21 | 0 | 0 | 21 | 0 | 11 | 24 | 0 | 14 | 27 | 0 |
| Vehicle Extension [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Minimum Recall | | No | | | No | | No | No | | No | No | |
| Maximum Recall | | No | | | No | | No | No | | No | No | |
| Pedestrian Recall | | No | | | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | C | R | L | C | C | L | C | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 6.00 | 6.00 | 4.00 | 6.00 | 6.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 4.00 | 4.00 | 2.00 | 4.00 | 4.00 |
| g_i, Effective Green Time [s] | 19 | 19 | 19 | 23 | 23 | 6 | 24 | 24 | 30 | 48 | 48 |
| g / C, Green / Cycle | 0.16 | 0.16 | 0.16 | 0.20 | 0.20 | 0.06 | 0.21 | 0.21 | 0.26 | 0.42 | 0.42 |
| (v / s)_i Volume / Saturation Flow Rate | 0.14 | 0.09 | 0.09 | 0.18 | 0.06 | 0.04 | 0.15 | 0.16 | 0.25 | 0.39 | 0.39 |
| s, saturation flow rate [veh/h] | 1752 | 1710 | 2768 | 1835 | 2768 | 1752 | 3503 | 1600 | 3403 | 1840 | 1832 |
| c, Capacity [veh/h] | 287 | 281 | 454 | 370 | 558 | 97 | 751 | 343 | 891 | 774 | 771 |
| d1, Uniform Delay [s] | 46.08 | 43.60 | 43.63 | 44.22 | 38.69 | 52.97 | 41.39 | 41.56 | 41.11 | 31.15 | 31.24 |
| k, delay calibration | 0.11 | 0.11 | 0.11 | 0.22 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.26 | 0.26 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 6.59 | 1.63 | 1.03 | 14.05 | 0.32 | 12.10 | 1.26 | 2.94 | 5.83 | 10.75 | 11.24 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.84 | 0.54 | 0.55 | 0.90 | 0.31 | 0.77 | 0.71 | 0.73 | 0.94 | 0.92 | 0.93 |
| d, Delay for Lane Group [s/veh] | 52.67 | 45.23 | 44.66 | 58.27 | 39.01 | 65.07 | 42.64 | 44.50 | 46.94 | 41.90 | 42.48 |
| Lane Group LOS | D | D | D | E | D | E | D | D | D | D | D |
| Critical Lane Group | Yes | No | No | Yes | No | Yes | No | No | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 6.86 | 3.90 | 3.15 | 10.08 | 2.02 | 2.38 | 6.80 | 6.53 | 11.58 | 19.18 | 19.32 |
| 50th-Percentile Queue Length [ft/ln] | 171.50 | 97.51 | 78.66 | 251.95 | 50.55 | 59.51 | 169.97 | 163.32 | 289.50 | 479.40 | 482.92 |
| 95th-Percentile Queue Length [veh/ln] | 11.16 | 7.02 | 5.66 | 15.28 | 3.64 | 4.28 | 11.07 | 10.72 | 17.16 | 26.36 | 26.52 |
| 95th-Percentile Queue Length [ft/ln] | 278.89 | 175.52 | 141.59 | 382.10 | 90.98 | 107.11 | 276.87 | 268.12 | 429.03 | 658.94 | 663.12 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 52.67 | 45.23 | 44.76 | 58.27 | 58.27 | 39.01 | 65.07 | 42.76 | 44.50 | 46.94 | 42.18 | 42.48 |
| Movement LOS | D | D | D | E | E | D | E | D | D | D | D | D |
| d_A, Approach Delay [s/veh] | 47.81 | | | 51.61 | | | 45.14 | | | 43.95 | | |
| Approach LOS | D | | | D | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 45.68 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.751 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 29.76 | 29.76 | 29.76 | 29.76 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.990 | 2.516 | 3.100 | 3.323 |
| Crosswalk LOS | C | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 425 | 425 | 450 | 525 |
| d_b, Bicycle Delay [s] | 24.81 | 24.81 | 24.03 | 21.76 |
| l_b,int, Bicycle LOS Score for Intersection | 2.621 | 2.395 | 2.031 | 3.430 |
| Bicycle LOS | B | B | B | C |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 4 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 2: Sellers Ave/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 49.2 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.385 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Ave | | Laurel Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 35.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | Yes | | Yes | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Ave | | Laurel Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 148 | 224 | 200 | 50 | 50 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 48 | 48 | 401 | 218 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 2 | 88 | 40 | 0 |
| Other Volume [veh/h] | 23 | 13 | 5 | 0 | 0 | 10 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 23 | 210 | 279 | 689 | 308 | 60 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 6 | 53 | 70 | 172 | 77 | 15 |
| Total Analysis Volume [veh/h] | 23 | 210 | 279 | 689 | 308 | 60 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 100 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fixed time |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protected | Permissive | Permissive | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 6 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | Lead | - | - | - | Lead | - |
| Minimum Green [s] | 5 | 5 | 5 | 0 | 5 | 0 |
| Maximum Green [s] | 30 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 35 | 31 | 65 | 0 | 69 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 5 | 5 | 0 | 5 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 10 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | No | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | No | | No | |
| Maximum Recall | No | No | No | | No | |
| Pedestrian Recall | No | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | R | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 169 | 169 | 169 | 169 | 169 | 169 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 31 | 27 | 61 | 61 | 65 | 65 |
| g / C, Green / Cycle | 0.18 | 0.16 | 0.36 | 0.36 | 0.38 | 0.38 |
| (v / s)_i Volume / Saturation Flow Rate | 0.01 | 0.07 | 0.17 | 0.27 | 0.10 | 0.04 |
| s, saturation flow rate [veh/h] | 1603 | 3204 | 1683 | 2532 | 3113 | 1431 |
| c, Capacity [veh/h] | 294 | 512 | 607 | 914 | 1197 | 550 |
| d1, Uniform Delay [s] | 57.16 | 63.84 | 41.37 | 47.41 | 35.51 | 33.40 |
| k, delay calibration | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.52 | 2.42 | 2.49 | 5.74 | 0.52 | 0.40 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.08 | 0.41 | 0.46 | 0.75 | 0.26 | 0.11 |
| d, Delay for Lane Group [s/veh] | 57.68 | 66.26 | 43.86 | 53.15 | 36.03 | 33.80 |
| Lane Group LOS | E | E | D | D | D | C |
| Critical Lane Group | Yes | No | No | Yes | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.85 | 4.18 | 9.19 | 13.13 | 4.49 | 1.68 |
| 50th-Percentile Queue Length [ft/ln] | 21.21 | 104.46 | 229.63 | 328.29 | 112.31 | 41.89 |
| 95th-Percentile Queue Length [veh/ln] | 1.53 | 7.52 | 14.16 | 19.07 | 7.97 | 3.02 |
| 95th-Percentile Queue Length [ft/ln] | 38.18 | 188.02 | 353.89 | 476.86 | 199.21 | 75.40 |

**Movement, Approach, & Intersection Results**

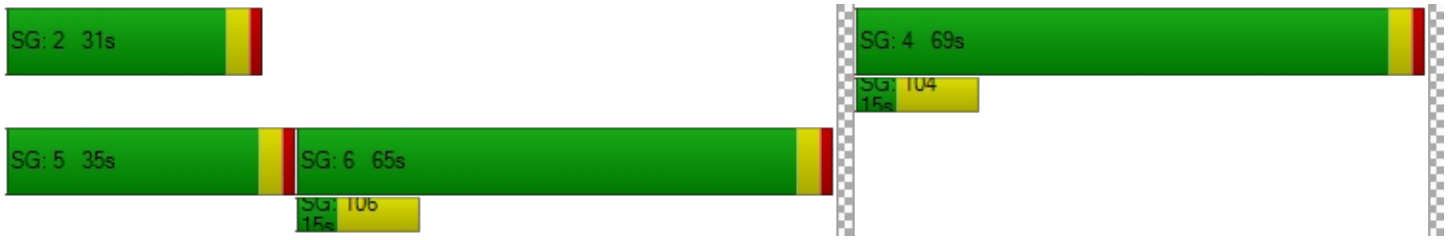
| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 57.68 | 66.26 | 43.86 | 53.15 | 36.03 | 33.80 |
| Movement LOS | E | E | D | D | D | C |
| d_A, Approach Delay [s/veh] | 65.42 | | 50.47 | | 35.67 | |
| Approach LOS | E | | D | | D | |
| d_I, Intersection Delay [s/veh] | 49.22 | | | | | |
| Intersection LOS | D | | | | | |
| Intersection V/C | 0.385 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 9.0 | 9.0 | 9.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 41.41 | 41.41 | 41.41 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.370 | 2.789 | 2.552 |
| Crosswalk LOS | B | C | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 540 | 1220 | 1300 |
| d_b, Bicycle Delay [s] | 26.65 | 7.61 | 6.13 |
| l_b,int, Bicycle LOS Score for Intersection | 1.752 | 3.157 | 1.560 |
| Bicycle LOS | A | C | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Sellers Rd/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 10.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.335 |

**Intersection Setup**

| Name | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 40.00 | | | 40.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 33 | 86 | 36 | 3 | 142 | 15 | 13 | 63 | 41 | 38 | 63 | 3 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 1 | 1 | 49 | 0 | 8 | 37 | 12 | 0 | 3 | 120 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 1 | 0 | 0 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 34 | 89 | 85 | 3 | 153 | 59 | 25 | 63 | 44 | 158 | 63 | 3 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 9 | 22 | 21 | 1 | 38 | 15 | 6 | 16 | 11 | 40 | 16 | 1 |
| Total Analysis Volume [veh/h] | 34 | 89 | 85 | 3 | 153 | 59 | 25 | 63 | 44 | 158 | 63 | 3 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | |
|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 715 | 710 | 686 | 669 |
| Degree of Utilization, x | 0.29 | 0.30 | 0.19 | 0.33 |

**Movement, Approach, & Intersection Results**

| | | | | |
|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 1.21 | 1.28 | 0.71 | 1.47 |
| 95th-Percentile Queue Length [ft] | 30.17 | 31.91 | 17.69 | 36.77 |
| Approach Delay [s/veh] | 10.08 | 10.26 | 9.50 | 11.06 |
| Approach LOS | B | B | A | B |
| Intersection Delay [s/veh] | 10.31 | | | |
| Intersection LOS | B | | | |

**Intersection Level Of Service Report**
**Intersection 4: Sellers Rd/Project Access 1**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.4 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.031 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Rd | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Rd | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 148 | 224 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 48 | 48 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 2 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 18 | 8 | 7 | 18 | 4 |
| Total Hourly Volume [veh/h] | 0 | 215 | 282 | 7 | 18 | 4 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 54 | 71 | 2 | 5 | 1 |
| Total Analysis Volume [veh/h] | 0 | 215 | 282 | 7 | 18 | 4 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 |
| d_M, Delay for Movement [s/veh] | 7.84 | 0.00 | 0.00 | 0.00 | 11.38 | 9.32 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.11 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 2.75 | 2.75 |
| d_A, Approach Delay [s/veh] | 0.00 | | 0.00 | | 11.00 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.46 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 5: Sellers Rd/Project Access 2**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.030 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Rd | | Project Access 2 | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Rd | | Project Access 2 | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 148 | 224 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 48 | 48 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 2 | 0 | 0 | 0 |
| Other Volume [veh/h] | 1 | 0 | 4 | 8 | 18 | 4 |
| Total Hourly Volume [veh/h] | 1 | 197 | 278 | 8 | 18 | 4 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 49 | 70 | 2 | 5 | 1 |
| Total Analysis Volume [veh/h] | 1 | 197 | 278 | 8 | 18 | 4 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 7.83 | 0.00 | 0.00 | 0.00 | 11.29 | 9.30 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.11 |
| 95th-Percentile Queue Length [ft/ln] | 0.06 | 0.03 | 0.00 | 0.00 | 2.71 | 2.71 |
| d_A, Approach Delay [s/veh] | 0.04 | | 0.00 | | 10.93 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.49 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 6: Main St/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 53.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.804 |

**Intersection Setup**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 305.00 | 100.00 | 1150.00 | 215.00 | 100.00 | 215.00 | 160.00 | 100.00 | 160.00 | 240.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 49.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | | 40.00 | | | 40.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 107 | 298 | 141 | 61 | 465 | 14 | 126 | 106 | 101 | 176 | 362 | 104 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 30 | 39 | 6 | 9 | 29 | 295 | 18 | 222 | 20 | 21 | 360 | 64 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 36 | 4 | 6 | 1 | 2 | 0 | 2 | 33 | 0 | 17 | 64 | 7 |
| Other Volume [veh/h] | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 23 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 173 | 341 | 155 | 71 | 496 | 309 | 146 | 369 | 121 | 214 | 809 | 175 |
| Peak Hour Factor | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.8000 | 0.9000 | 0.9000 | 0.9000 | 0.6700 | 0.6700 | 0.6700 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 54 | 107 | 48 | 22 | 155 | 97 | 41 | 103 | 34 | 80 | 302 | 65 |
| Total Analysis Volume [veh/h] | 216 | 426 | 194 | 89 | 620 | 386 | 162 | 410 | 134 | 319 | 1207 | 261 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 2 | | | 0 | | | 2 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 2 | | | 0 | | | 2 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 1 | | | 0 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 140 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fully actuated |
| Offset [s] | 108.0 |
| Offset Reference | Lagging Force-Off |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 0 | 1 | 6 | 0 | 7 | 4 | 0 | 3 | 8 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 6 | 10 | 0 | 6 | 10 | 0 | 6 | 6 | 0 | 6 | 6 | 0 |
| Maximum Green [s] | 11 | 33 | 0 | 11 | 33 | 0 | 14 | 35 | 0 | 18 | 39 | 0 |
| Amber [s] | 3.0 | 4.5 | 0.0 | 3.0 | 4.5 | 0.0 | 3.0 | 4.4 | 0.0 | 3.0 | 4.1 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 22 | 40 | 0 | 22 | 40 | 0 | 22 | 39 | 0 | 39 | 56 | 0 |
| Vehicle Extension [s] | 2.0 | 3.0 | 0.0 | 2.0 | 3.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 18 | 0 | 0 | 24 | 0 | 0 | 26 | 0 | 0 | 30 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 3.5 | 0.0 | 2.0 | 3.5 | 0.0 | 2.0 | 3.4 | 0.0 | 2.0 | 3.1 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | Yes | | No | Yes | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | R | L | C | R | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 |
| L, Total Lost Time per Cycle [s] | 4.00 | 5.50 | 5.50 | 4.00 | 5.50 | 5.50 | 4.00 | 5.40 | 5.40 | 4.00 | 5.10 | 5.10 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 3.50 | 3.50 | 2.00 | 3.50 | 3.50 | 2.00 | 3.40 | 3.40 | 2.00 | 3.10 | 3.10 |
| g_i, Effective Green Time [s] | 18 | 48 | 48 | 9 | 39 | 39 | 15 | 37 | 37 | 27 | 50 | 50 |
| g / C, Green / Cycle | 0.13 | 0.34 | 0.34 | 0.06 | 0.28 | 0.28 | 0.10 | 0.27 | 0.27 | 0.19 | 0.36 | 0.36 |
| (v / s)_i Volume / Saturation Flow Rate | 0.12 | 0.18 | 0.18 | 0.05 | 0.18 | 0.25 | 0.09 | 0.12 | 0.09 | 0.18 | 0.34 | 0.17 |
| s, saturation flow rate [veh/h] | 1767 | 1855 | 1661 | 1767 | 3532 | 1557 | 1767 | 3532 | 1570 | 1767 | 3532 | 1577 |
| c, Capacity [veh/h] | 227 | 637 | 571 | 110 | 979 | 432 | 185 | 941 | 418 | 341 | 1261 | 563 |
| d1, Uniform Delay [s] | 60.56 | 36.60 | 36.61 | 64.79 | 44.32 | 48.38 | 61.76 | 42.60 | 41.16 | 55.60 | 43.95 | 34.67 |
| k, delay calibration | 0.37 | 0.50 | 0.50 | 0.04 | 0.50 | 0.50 | 0.17 | 0.04 | 0.04 | 0.21 | 0.04 | 0.04 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 40.47 | 2.94 | 3.29 | 5.30 | 3.11 | 23.59 | 17.93 | 0.12 | 0.16 | 19.21 | 2.30 | 0.22 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.95 | 0.51 | 0.51 | 0.81 | 0.63 | 0.89 | 0.88 | 0.44 | 0.32 | 0.94 | 0.96 | 0.46 |
| d, Delay for Lane Group [s/veh] | 101.03 | 39.53 | 39.90 | 70.10 | 47.43 | 71.97 | 79.69 | 42.72 | 41.32 | 74.81 | 46.25 | 34.89 |
| Lane Group LOS | F | D | D | E | D | E | E | D | D | E | D | C |
| Critical Lane Group | Yes | No | No | No | No | Yes | Yes | No | No | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 10.07 | 9.32 | 8.43 | 3.27 | 9.74 | 15.49 | 6.53 | 5.86 | 3.71 | 12.82 | 20.47 | 6.88 |
| 50th-Percentile Queue Length [ft/ln] | 251.63 | 233.11 | 210.63 | 81.64 | 243.45 | 387.25 | 163.31 | 146.42 | 92.68 | 320.43 | 511.64 | 171.97 |
| 95th-Percentile Queue Length [veh/ln] | 15.27 | 14.33 | 13.19 | 5.88 | 14.86 | 21.94 | 10.72 | 9.83 | 6.67 | 18.69 | 27.88 | 11.18 |
| 95th-Percentile Queue Length [ft/ln] | 381.71 | 358.31 | 329.63 | 146.96 | 371.40 | 548.62 | 268.10 | 245.64 | 166.83 | 467.21 | 697.12 | 279.51 |

**Movement, Approach, & Intersection Results**

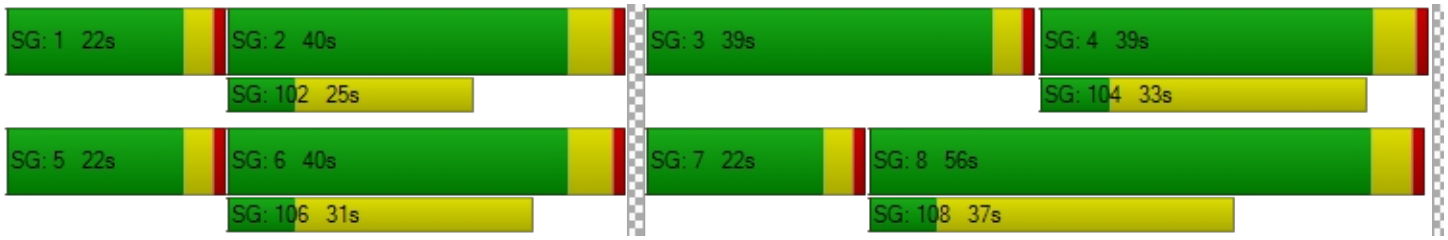
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 101.03 | 39.62 | 39.90 | 70.10 | 47.43 | 71.97 | 79.69 | 42.72 | 41.32 | 74.81 | 46.25 | 34.89 |
| Movement LOS | F | D | D | E | D | E | E | D | D | E | D | C |
| d_A, Approach Delay [s/veh] | 55.55 | | | 57.92 | | | 50.94 | | | 49.69 | | |
| Approach LOS | E | | | E | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 53.03 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.804 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 1527.60 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 59.43 | 59.43 | 59.43 | 59.43 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.817 | 2.895 | 3.019 | 2.944 |
| Crosswalk LOS | C | C | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 493 | 493 | 480 | 727 |
| d_b, Bicycle Delay [s] | 39.75 | 39.77 | 40.43 | 28.35 |
| l_b,int, Bicycle LOS Score for Intersection | 2.249 | 2.463 | 2.142 | 3.034 |
| Bicycle LOS | B | B | B | C |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main St/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 12.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.434 |

**Intersection Setup**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 1 | 1 | 0 | 0 | 1 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 95.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | 40.00 | | 40.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | No | | No | | No | |

**Volumes**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 348 | 66 | 151 | 569 | 51 | 190 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 14 | 5 | 11 | 47 | 14 | 24 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 8 | 0 | 0 | 24 | 0 | 0 |
| Other Volume [veh/h] | 2 | 0 | 0 | 0 | 7 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 372 | 71 | 162 | 640 | 72 | 214 |
| Peak Hour Factor | 0.9000 | 0.9000 | 0.7800 | 0.7800 | 0.8600 | 0.8600 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 103 | 20 | 52 | 205 | 21 | 62 |
| Total Analysis Volume [veh/h] | 413 | 79 | 208 | 821 | 84 | 249 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Free Running |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Permissive | Permissive | Protected | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 6 | 0 | 5 | 2 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | - | - | Lead | - | Lead | - |
| Minimum Green [s] | 5 | 0 | 5 | 5 | 5 | 0 |
| Maximum Green [s] | 30 | 0 | 30 | 60 | 30 | 0 |
| Amber [s] | 4.4 | 0.0 | 3.0 | 4.4 | 4.4 | 0.0 |
| All red [s] | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 0 | 0 | 0 | 0 | 0 | 0 |
| Vehicle Extension [s] | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 5 | 0 | 0 | 5 | 5 | 0 |
| Pedestrian Clearance [s] | 10 | 0 | 0 | 10 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | No | | | No | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 3.4 | 0.0 | 2.0 | 3.4 | 3.4 | 0.0 |
| Minimum Recall | No | | No | No | No | |
| Maximum Recall | No | | No | No | No | |
| Pedestrian Recall | No | | No | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | C | R | L | C | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 37 | 37 | 37 | 37 | 37 | 37 |
| L, Total Lost Time per Cycle [s] | 5.40 | 5.40 | 4.00 | 5.40 | 5.40 | 5.40 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 3.40 | 3.40 | 2.00 | 3.40 | 3.40 | 3.40 |
| g_i, Effective Green Time [s] | 7 | 7 | 6 | 18 | 9 | 9 |
| g / C, Green / Cycle | 0.20 | 0.20 | 0.17 | 0.48 | 0.23 | 0.23 |
| (v / s)_i Volume / Saturation Flow Rate | 0.13 | 0.06 | 0.13 | 0.26 | 0.05 | 0.17 |
| s, saturation flow rate [veh/h] | 3197 | 1427 | 1599 | 3197 | 1599 | 1427 |
| c, Capacity [veh/h] | 642 | 287 | 271 | 1528 | 372 | 332 |
| d1, Uniform Delay [s] | 13.68 | 12.61 | 14.78 | 6.84 | 11.59 | 13.30 |
| k, delay calibration | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 1.08 | 0.51 | 4.51 | 0.30 | 0.30 | 3.41 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.64 | 0.28 | 0.77 | 0.54 | 0.23 | 0.75 |
| d, Delay for Lane Group [s/veh] | 14.76 | 13.12 | 19.30 | 7.14 | 11.90 | 16.71 |
| Lane Group LOS | B | B | B | A | B | B |
| Critical Lane Group | Yes | No | Yes | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 1.26 | 0.45 | 1.59 | 1.20 | 0.44 | 1.70 |
| 50th-Percentile Queue Length [ft/ln] | 31.58 | 11.31 | 39.86 | 30.03 | 10.97 | 42.50 |
| 95th-Percentile Queue Length [veh/ln] | 2.27 | 0.81 | 2.87 | 2.16 | 0.79 | 3.06 |
| 95th-Percentile Queue Length [ft/ln] | 56.85 | 20.36 | 71.75 | 54.05 | 19.75 | 76.51 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 14.76 | 13.12 | 19.30 | 7.14 | 11.90 | 16.71 |
| Movement LOS | B | B | B | A | B | B |
| d_A, Approach Delay [s/veh] | 14.50 | | 9.60 | | 15.50 | |
| Approach LOS | B | | A | | B | |
| d_I, Intersection Delay [s/veh] | 11.96 | | | | | |
| Intersection LOS | B | | | | | |
| Intersection V/C | 0.434 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 0.0 | 0.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 0.00 | 0.00 |
| l_p,int, Pedestrian LOS Score for Intersection | 0.000 | 0.000 | 0.000 |
| Crosswalk LOS | F | F | F |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 667 | 1333 | 667 |
| d_b, Bicycle Delay [s] | 20.00 | 5.00 | 20.00 |
| l_b,int, Bicycle LOS Score for Intersection | 1.966 | 2.409 | 1.560 |
| Bicycle LOS | A | B | A |

## Sequence

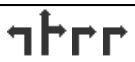
| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 1: Sellers Rd/E Cypress Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 37.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.679 |

**Intersection Setup**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| Entry Pocket Length [ft] | 150.00 | 100.00 | 150.00 | 110.00 | 100.00 | 100.00 | 185.00 | 100.00 | 185.00 | 250.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 45.00 | | | 50.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Sellers Rd | | | Sellers Rd | | | E Cypress Rd | | | E Cypress Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 86 | 2 | 106 | 3 | 0 | 10 | 1 | 379 | 7 | 218 | 133 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 54 | 98 | 679 | 1 | 25 | 125 | 127 | 463 | 61 | 97 | 566 | 1 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 16 | 16 | 1 | 10 | 16 | 52 | 53 | 148 | 15 | 1 | 94 | 11 |
| Other Volume [veh/h] | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 165 | 116 | 786 | 14 | 41 | 187 | 181 | 990 | 97 | 316 | 793 | 12 |
| Peak Hour Factor | 0.8400 | 0.8400 | 0.8400 | 0.6500 | 0.6500 | 0.6500 | 0.9200 | 0.9200 | 0.9200 | 0.9100 | 0.9100 | 0.9100 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 49 | 35 | 234 | 5 | 16 | 72 | 49 | 269 | 26 | 87 | 218 | 3 |
| Total Analysis Volume [veh/h] | 196 | 138 | 936 | 22 | 63 | 288 | 197 | 1076 | 105 | 347 | 871 | 13 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 0 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | | 0 | | | 0 | | | 0 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 1 | | | 0 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 120 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Split | Split | Split | Split | Split | Split | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 0 | 8 | 0 | 0 | 4 | 0 | 5 | 2 | 0 | 1 | 6 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | - | - | - | - | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 0 | 5 | 0 | 0 | 5 | 0 | 5 | 5 | 0 | 5 | 5 | 0 |
| Maximum Green [s] | 0 | 30 | 0 | 0 | 30 | 0 | 30 | 60 | 0 | 30 | 60 | 0 |
| Amber [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 4.0 | 0.0 | 3.0 | 4.0 | 0.0 |
| All red [s] | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 2.0 | 0.0 | 1.0 | 2.0 | 0.0 |
| Split [s] | 0 | 43 | 0 | 0 | 21 | 0 | 12 | 32 | 0 | 24 | 44 | 0 |
| Vehicle Extension [s] | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 0.0 | 2.0 | 0.0 | 0.0 | 2.0 | 0.0 | 2.0 | 4.0 | 0.0 | 2.0 | 4.0 | 0.0 |
| Minimum Recall | | No | | | No | | No | No | | No | No | |
| Maximum Recall | | No | | | No | | No | No | | No | No | |
| Pedestrian Recall | | No | | | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | R | C | R | L | C | C | L | C | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 6.00 | 6.00 | 4.00 | 6.00 | 6.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 4.00 | 4.00 | 2.00 | 4.00 | 4.00 |
| g_i, Effective Green Time [s] | 27 | 27 | 27 | 13 | 13 | 13 | 26 | 26 | 12 | 25 | 25 |
| g / C, Green / Cycle | 0.28 | 0.28 | 0.28 | 0.13 | 0.13 | 0.13 | 0.27 | 0.27 | 0.13 | 0.26 | 0.26 |
| (v / s)_i Volume / Saturation Flow Rate | 0.11 | 0.23 | 0.25 | 0.05 | 0.10 | 0.11 | 0.22 | 0.23 | 0.10 | 0.17 | 0.17 |
| s, saturation flow rate [veh/h] | 1752 | 1652 | 2768 | 1816 | 2768 | 1752 | 3503 | 1751 | 3403 | 3503 | 1826 |
| c, Capacity [veh/h] | 493 | 465 | 779 | 239 | 364 | 236 | 942 | 471 | 443 | 925 | 482 |
| d1, Uniform Delay [s] | 27.80 | 32.26 | 32.82 | 37.81 | 40.23 | 40.30 | 32.95 | 32.99 | 40.27 | 31.03 | 31.03 |
| k, delay calibration | 0.11 | 0.27 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.52 | 9.22 | 3.49 | 0.90 | 3.88 | 7.50 | 2.04 | 4.07 | 3.09 | 0.71 | 1.35 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.40 | 0.83 | 0.88 | 0.36 | 0.79 | 0.83 | 0.84 | 0.84 | 0.78 | 0.63 | 0.63 |
| d, Delay for Lane Group [s/veh] | 28.32 | 41.48 | 36.31 | 38.71 | 44.11 | 47.80 | 34.99 | 37.05 | 43.36 | 31.74 | 32.39 |
| Lane Group LOS | C | D | D | D | D | D | C | D | D | C | C |
| Critical Lane Group | No | No | Yes | No | Yes | No | No | Yes | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 3.43 | 8.91 | 7.33 | 1.77 | 3.28 | 4.78 | 8.28 | 8.58 | 3.91 | 5.56 | 5.88 |
| 50th-Percentile Queue Length [ft/ln] | 85.83 | 222.72 | 183.20 | 44.29 | 82.05 | 119.62 | 206.90 | 214.45 | 97.66 | 138.93 | 147.03 |
| 95th-Percentile Queue Length [veh/ln] | 6.18 | 13.80 | 11.77 | 3.19 | 5.91 | 8.37 | 12.99 | 13.38 | 7.03 | 9.42 | 9.86 |
| 95th-Percentile Queue Length [ft/ln] | 154.50 | 345.10 | 294.18 | 79.72 | 147.69 | 209.30 | 324.85 | 334.53 | 175.80 | 235.58 | 246.46 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 28.32 | 41.48 | 37.64 | 38.71 | 38.71 | 44.11 | 47.80 | 35.54 | 37.05 | 43.36 | 31.96 | 32.39 |
| Movement LOS | C | D | D | D | D | D | D | D | D | D | C | C |
| d_A, Approach Delay [s/veh] | 36.66 | | | 42.88 | | | 37.41 | | | 35.17 | | |
| Approach LOS | D | | | D | | | D | | | D | | |
| d_I, Intersection Delay [s/veh] | 37.02 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.679 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 49.50 | 49.50 | 49.50 | 49.50 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.950 | 2.548 | 3.179 | 3.402 |
| Crosswalk LOS | C | B | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 650 | 283 | 433 | 633 |
| d_b, Bicycle Delay [s] | 27.34 | 44.20 | 36.84 | 28.02 |
| l_b,int, Bicycle LOS Score for Intersection | 3.655 | 2.175 | 2.318 | 2.237 |
| Bicycle LOS | D | B | B | B |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 4 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 2: Sellers Ave/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 50.7 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.362 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Ave | | Laurel Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 0 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 35.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | Yes | | Yes | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Ave | | Laurel Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 194 | 75 | 150 | 25 | 25 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 186 | 134 | 35 | 645 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 1 | 6 | 10 | 0 |
| Other Volume [veh/h] | 16 | 9 | 15 | 0 | 0 | 34 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 16 | 390 | 225 | 191 | 680 | 59 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 4 | 98 | 56 | 48 | 170 | 15 |
| Total Analysis Volume [veh/h] | 16 | 390 | 225 | 191 | 680 | 59 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 120 |
| Coordination Type | Time of Day Pattern Coordinated |
| Actuation Type | Fixed time |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protected | Permissive | Permissive | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 6 | 0 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | Lead | - | - | - | Lead | - |
| Minimum Green [s] | 5 | 5 | 5 | 0 | 5 | 0 |
| Maximum Green [s] | 30 | 30 | 30 | 0 | 30 | 0 |
| Amber [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| All red [s] | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 0.0 |
| Split [s] | 35 | 31 | 65 | 0 | 69 | 0 |
| Vehicle Extension [s] | 3.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 |
| Walk [s] | 0 | 5 | 5 | 0 | 5 | 0 |
| Pedestrian Clearance [s] | 0 | 10 | 10 | 0 | 10 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | No | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 | 0.0 |
| Minimum Recall | No | No | No | | No | |
| Maximum Recall | No | No | No | | No | |
| Pedestrian Recall | No | No | No | | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | R | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 169 | 169 | 169 | 169 | 169 | 169 |
| L, Total Lost Time per Cycle [s] | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| g_i, Effective Green Time [s] | 31 | 27 | 61 | 61 | 65 | 65 |
| g / C, Green / Cycle | 0.18 | 0.16 | 0.36 | 0.36 | 0.38 | 0.38 |
| (v / s)_i Volume / Saturation Flow Rate | 0.01 | 0.12 | 0.13 | 0.08 | 0.22 | 0.04 |
| s, saturation flow rate [veh/h] | 1603 | 3204 | 1683 | 2532 | 3113 | 1431 |
| c, Capacity [veh/h] | 294 | 512 | 607 | 914 | 1197 | 550 |
| d1, Uniform Delay [s] | 56.91 | 67.92 | 39.83 | 37.32 | 40.94 | 33.38 |
| k, delay calibration | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.35 | 10.26 | 1.73 | 0.52 | 1.96 | 0.39 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.05 | 0.76 | 0.37 | 0.21 | 0.57 | 0.11 |
| d, Delay for Lane Group [s/veh] | 57.26 | 78.19 | 41.57 | 37.84 | 42.90 | 33.77 |
| Lane Group LOS | E | E | D | D | D | C |
| Critical Lane Group | Yes | No | Yes | No | Yes | No |
| 50th-Percentile Queue Length [veh/ln] | 0.59 | 8.65 | 7.10 | 2.77 | 11.54 | 1.65 |
| 50th-Percentile Queue Length [ft/ln] | 14.67 | 216.13 | 177.47 | 69.32 | 288.50 | 41.16 |
| 95th-Percentile Queue Length [veh/ln] | 1.06 | 13.47 | 11.47 | 4.99 | 17.11 | 2.96 |
| 95th-Percentile Queue Length [ft/ln] | 26.41 | 336.68 | 286.71 | 124.78 | 427.78 | 74.09 |

**Movement, Approach, & Intersection Results**

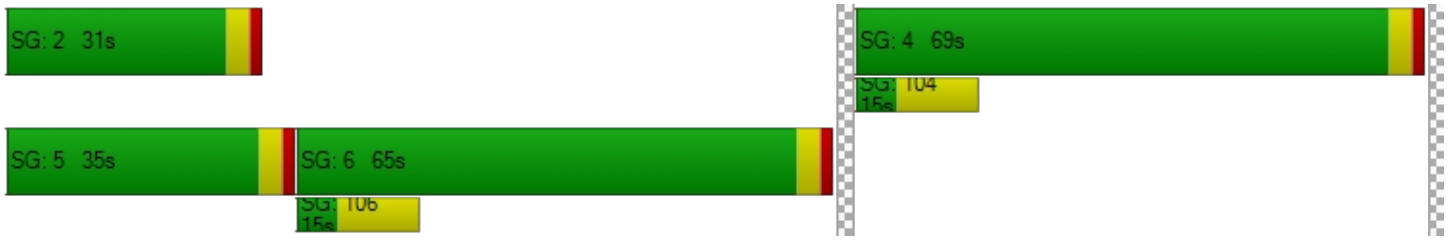
| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 57.26 | 78.19 | 41.57 | 37.84 | 42.90 | 33.77 |
| Movement LOS | E | E | D | D | D | C |
| d_A, Approach Delay [s/veh] | 77.36 | | 39.86 | | 42.17 | |
| Approach LOS | E | | D | | D | |
| d_I, Intersection Delay [s/veh] | 50.71 | | | | | |
| Intersection LOS | D | | | | | |
| Intersection V/C | 0.362 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 9.0 | 9.0 | 9.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 51.34 | 51.34 | 51.34 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.427 | 2.798 | 2.530 |
| Crosswalk LOS | B | C | B |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 450 | 1017 | 1083 |
| d_b, Bicycle Delay [s] | 36.04 | 14.50 | 12.60 |
| l_b,int, Bicycle LOS Score for Intersection | 1.895 | 2.246 | 1.560 |
| Bicycle LOS | A | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 3: Sellers Rd/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | All-way stop | Delay (sec / veh): | 19.3 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | C |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.778 |

**Intersection Setup**

| Name | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | | 50.00 | | | 40.00 | | | 40.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 88 | 203 | 51 | 13 | 149 | 22 | 34 | 113 | 52 | 43 | 85 | 21 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 4 | 132 | 0 | 0 | 77 | 21 | 41 | 0 | 2 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 1 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 92 | 337 | 51 | 13 | 228 | 47 | 75 | 113 | 54 | 43 | 85 | 21 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 23 | 84 | 13 | 3 | 57 | 12 | 19 | 28 | 14 | 11 | 21 | 5 |
| Total Analysis Volume [veh/h] | 92 | 337 | 51 | 13 | 228 | 47 | 75 | 113 | 54 | 43 | 85 | 21 |
| Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |

**Intersection Settings**

**Lanes**

| | | | | |
|---|---|---|---|---|
| Capacity per Entry Lane [veh/h] | 616 | 586 | 549 | 524 |
| Degree of Utilization, x | 0.78 | 0.49 | 0.44 | 0.28 |

**Movement, Approach, & Intersection Results**

| | | | | |
|---|---|---|---|---|
| 95th-Percentile Queue Length [veh] | 7.36 | 2.70 | 2.23 | 1.16 |
| 95th-Percentile Queue Length [ft] | 184.10 | 67.46 | 55.77 | 29.07 |
| Approach Delay [s/veh] | 26.29 | 14.91 | 14.60 | 12.58 |
| Approach LOS | D | B | B | B |
| Intersection Delay [s/veh] | 19.26 | | | |
| Intersection LOS | C | | | |

**Intersection Level Of Service Report**
**Intersection 4: Sellers Rd/Project Access 1**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.8 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.024 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Rd | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Rd | | Project Access 1 | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 194 | 75 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 186 | 134 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 1 | 0 | 0 | 0 |
| Other Volume [veh/h] | 0 | 12 | 24 | 25 | 13 | 3 |
| Total Hourly Volume [veh/h] | 0 | 393 | 234 | 25 | 13 | 3 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 98 | 59 | 6 | 3 | 1 |
| Total Analysis Volume [veh/h] | 0 | 393 | 234 | 25 | 13 | 3 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | | | |
|---|---|---|---|
| Priority Scheme | Free | Free | Stop |
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 |
| d_M, Delay for Movement [s/veh] | 7.76 | 0.00 | 0.00 | 0.00 | 11.80 | 9.19 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.08 |
| 95th-Percentile Queue Length [ft/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 2.10 | 2.10 |
| d_A, Approach Delay [s/veh] | 0.00 | | 0.00 | | 11.31 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.27 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 5: Sellers Rd/Project Access 2**

| | | | |
|---|---|---|---|
| Control Type: | Two-way stop | Delay (sec / veh): | 11.5 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | B |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.021 |

**Intersection Setup**

| Name | Sellers Rd | | Sellers Rd | | | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Eastbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Left | Thru | Thru | Right | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 50.00 | | 50.00 | | 25.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Crosswalk | No | | No | | Yes | |

**Volumes**

| Name | Sellers Rd | | Sellers Rd | | | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 0 | 194 | 75 | 0 | 0 | 0 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 0 | 186 | 134 | 0 | 0 | 0 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 0 | 1 | 1 | 0 | 0 | 0 |
| Other Volume [veh/h] | 1 | 0 | 3 | 24 | 12 | 2 |
| Total Hourly Volume [veh/h] | 1 | 381 | 213 | 24 | 12 | 2 |
| Peak Hour Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 0 | 95 | 53 | 6 | 3 | 1 |
| Total Analysis Volume [veh/h] | 1 | 381 | 213 | 24 | 12 | 2 |
| Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| Priority Scheme | Free | Free | Stop |
|---|---|---|---|
| Flared Lane | | | No |
| Storage Area [veh] | 0 | 0 | 0 |
| Two-Stage Gap Acceptance | | | No |
| Number of Storage Spaces in Median | 0 | 0 | 0 |

**Movement, Approach, & Intersection Results**

| V/C, Movement V/C Ratio | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 7.71 | 0.00 | 0.00 | 0.00 | 11.54 | 9.10 |
| Movement LOS | A | A | A | A | B | A |
| 95th-Percentile Queue Length [veh/ln] | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.07 |
| 95th-Percentile Queue Length [ft/ln] | 0.06 | 0.03 | 0.00 | 0.00 | 1.80 | 1.80 |
| d_A, Approach Delay [s/veh] | 0.02 | | 0.00 | | 11.19 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 0.26 | | | | | |
| Intersection LOS | B | | | | | |

**Intersection Level Of Service Report**
**Intersection 6: Main St/Laurel Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 52.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | D |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.666 |

**Intersection Setup**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| Lane Configuration |  | | |  | | |  | | |  | | |
| Turning Movement | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Entry Pocket Length [ft] | 305.00 | 100.00 | 1150.00 | 215.00 | 100.00 | 215.00 | 160.00 | 100.00 | 160.00 | 240.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 49.21 | 0.00 | 0.00 | 49.21 | 0.00 | 0.00 | 49.21 | 0.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | | 40.00 | | | 40.00 | | | 35.00 | | |
| Grade [%] | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| Curb Present | No | | | No | | | No | | | No | | |
| Crosswalk | Yes | | | Yes | | | Yes | | | Yes | | |

**Volumes**

| Name | Main St | | | Main St | | | Laurel Rd | | | Laurel Rd | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 136 | 345 | 119 | 95 | 326 | 29 | 140 | 187 | 123 | 58 | 245 | 57 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 32 | 45 | 14 | 28 | 59 | 265 | 76 | 659 | 42 | 2 | 50 | 16 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 24 | 22 | 0 | 4 | 18 | 47 | 83 | 6 | 40 | 0 | 2 | 4 |
| Other Volume [veh/h] | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 27 | 0 | 0 | 16 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 192 | 412 | 140 | 127 | 403 | 341 | 299 | 879 | 205 | 60 | 313 | 77 |
| Peak Hour Factor | 0.8900 | 0.8900 | 0.8900 | 0.8800 | 0.8800 | 0.8800 | 0.9600 | 0.9600 | 0.9600 | 0.8800 | 0.8800 | 0.8800 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 54 | 116 | 39 | 36 | 114 | 97 | 78 | 229 | 53 | 17 | 89 | 22 |
| Total Analysis Volume [veh/h] | 216 | 463 | 157 | 144 | 458 | 388 | 311 | 916 | 214 | 68 | 356 | 88 |
| Presence of On-Street Parking | No | | No | No | | No | No | | No | No | | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 1 | | | 0 | | | 0 | | | 0 | | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | | 0 | | | 1 | | | 0 | | |
| v_co, Outbound Pedestrian Volume crossing | 1 | | | 0 | | | 0 | | | 1 | | |
| v_ci, Inbound Pedestrian Volume crossing mi | 1 | | | 0 | | | 0 | | | 1 | | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | | 0 | | | 0 | | | 0 | | |
| Bicycle Volume [bicycles/h] | 0 | | | 0 | | | 0 | | | 1 | | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | No |
| Signal Coordination Group | - |
| Cycle Length [s] | 140 |
| Coordination Type | Time of Day Pattern Isolated |
| Actuation Type | Fully actuated |
| Offset [s] | 108.0 |
| Offset Reference | Lagging Force-Off |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss | Protecte | Permiss | Permiss |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal Group | 5 | 2 | 0 | 1 | 6 | 0 | 7 | 4 | 0 | 3 | 8 | 0 |
| Auxiliary Signal Groups | | | | | | | | | | | | |
| Lead / Lag | Lead | - | - | Lead | - | - | Lead | - | - | Lead | - | - |
| Minimum Green [s] | 6 | 10 | 0 | 6 | 10 | 0 | 6 | 6 | 0 | 6 | 6 | 0 |
| Maximum Green [s] | 11 | 33 | 0 | 11 | 33 | 0 | 14 | 35 | 0 | 18 | 39 | 0 |
| Amber [s] | 3.0 | 4.5 | 0.0 | 3.0 | 4.5 | 0.0 | 3.0 | 4.4 | 0.0 | 3.0 | 4.1 | 0.0 |
| All red [s] | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 33 | 33 | 0 | 37 | 37 | 0 | 27 | 59 | 0 | 11 | 43 | 0 |
| Vehicle Extension [s] | 2.0 | 3.0 | 0.0 | 2.0 | 3.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| Walk [s] | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 7 | 0 |
| Pedestrian Clearance [s] | 0 | 18 | 0 | 0 | 24 | 0 | 0 | 26 | 0 | 0 | 30 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | | No | | | No | | | No | | | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 2.0 | 3.5 | 0.0 | 2.0 | 3.5 | 0.0 | 2.0 | 3.4 | 0.0 | 2.0 | 3.1 | 0.0 |
| Minimum Recall | No | No | | No | No | | No | No | | No | No | |
| Maximum Recall | No | Yes | | No | Yes | | No | No | | No | No | |
| Pedestrian Recall | No | No | | No | No | | No | No | | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | L | C | C | L | C | R | L | C | R | L | C | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 | 140 |
| L, Total Lost Time per Cycle [s] | 4.00 | 5.50 | 5.50 | 4.00 | 5.50 | 5.50 | 4.00 | 5.40 | 5.40 | 4.00 | 5.10 | 5.10 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 2.00 | 3.50 | 3.50 | 2.00 | 3.50 | 3.50 | 2.00 | 3.40 | 3.40 | 2.00 | 3.10 | 3.10 |
| g_i, Effective Green Time [s] | 19 | 62 | 62 | 13 | 57 | 57 | 23 | 39 | 39 | 7 | 23 | 23 |
| g / C, Green / Cycle | 0.14 | 0.45 | 0.45 | 0.09 | 0.41 | 0.41 | 0.16 | 0.28 | 0.28 | 0.05 | 0.16 | 0.16 |
| (v / s)_i Volume / Saturation Flow Rate | 0.12 | 0.17 | 0.17 | 0.08 | 0.13 | 0.25 | 0.18 | 0.26 | 0.14 | 0.04 | 0.10 | 0.06 |
| s, saturation flow rate [veh/h] | 1767 | 1855 | 1695 | 1767 | 3532 | 1577 | 1767 | 3532 | 1575 | 1767 | 3532 | 1556 |
| c, Capacity [veh/h] | 238 | 828 | 757 | 167 | 1436 | 641 | 288 | 971 | 433 | 86 | 575 | 253 |
| d1, Uniform Delay [s] | 59.65 | 25.94 | 25.95 | 62.41 | 28.30 | 32.66 | 58.49 | 49.62 | 42.53 | 65.77 | 54.51 | 51.91 |
| k, delay calibration | 0.09 | 0.50 | 0.50 | 0.04 | 0.50 | 0.50 | 0.49 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 10.48 | 1.39 | 1.52 | 5.03 | 0.59 | 4.21 | 74.67 | 2.28 | 0.33 | 5.85 | 0.41 | 0.30 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X, volume / capacity | 0.91 | 0.39 | 0.39 | 0.86 | 0.32 | 0.61 | 1.08 | 0.94 | 0.49 | 0.79 | 0.62 | 0.35 |
| d, Delay for Lane Group [s/veh] | 70.12 | 27.32 | 27.47 | 67.44 | 28.88 | 36.87 | 133.16 | 51.90 | 42.85 | 71.62 | 54.92 | 52.21 |
| Lane Group LOS | E | C | C | E | C | D | F | D | D | E | D | D |
| Critical Lane Group | Yes | No | No | No | No | Yes | No | Yes | No | Yes | No | No |
| 50th-Percentile Queue Length [veh/ln] | 8.14 | 7.45 | 6.85 | 5.23 | 5.32 | 10.92 | 16.03 | 15.66 | 6.19 | 2.53 | 5.86 | 2.77 |
| 50th-Percentile Queue Length [ft/ln] | 203.54 | 186.20 | 171.35 | 130.64 | 132.90 | 272.95 | 400.81 | 391.45 | 154.65 | 63.37 | 146.50 | 69.13 |
| 95th-Percentile Queue Length [veh/ln] | 12.82 | 11.92 | 11.15 | 8.97 | 9.10 | 16.34 | 23.46 | 22.15 | 10.26 | 4.56 | 9.83 | 4.98 |
| 95th-Percentile Queue Length [ft/ln] | 320.53 | 298.09 | 278.69 | 224.36 | 227.43 | 408.43 | 586.60 | 553.69 | 256.62 | 114.07 | 245.75 | 124.43 |

**Movement, Approach, & Intersection Results**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 70.12 | 27.37 | 27.47 | 67.44 | 28.88 | 36.87 | 133.16 | 51.90 | 42.85 | 71.62 | 54.92 | 52.21 |
| Movement LOS | E | C | C | E | C | D | F | D | D | E | D | D |
| d_A, Approach Delay [s/veh] | 38.43 | | | 37.62 | | | 68.10 | | | 56.67 | | |
| Approach LOS | D | | | D | | | E | | | E | | |
| d_I, Intersection Delay [s/veh] | 52.00 | | | | | | | | | | | |
| Intersection LOS | D | | | | | | | | | | | |
| Intersection V/C | 0.666 | | | | | | | | | | | |

**Other Modes**

| | | | | |
|---|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 11.0 | 11.0 | 11.0 | 11.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 5111.22 | 0.00 | 0.00 | 2620.88 |
| d_p, Pedestrian Delay [s] | 59.43 | 59.43 | 59.43 | 59.43 |
| l_p,int, Pedestrian LOS Score for Intersection | 2.731 | 2.875 | 2.994 | 2.802 |
| Crosswalk LOS | B | C | C | C |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 393 | 450 | 766 | 541 |
| d_b, Bicycle Delay [s] | 45.20 | 42.04 | 26.66 | 37.25 |
| l_b,int, Bicycle LOS Score for Intersection | 2.249 | 2.376 | 2.748 | 1.982 |
| Bicycle LOS | B | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | 1 | 2 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | 7 | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



**Intersection Level Of Service Report**
**Intersection 7: Main St/Delta Rd**

| | | | |
|---|---|---|---|
| Control Type: | Signalized | Delay (sec / veh): | 8.0 |
| Analysis Method: | HCM 6th Edition | Level Of Service: | A |
| Analysis Period: | 15 minutes | Volume to Capacity (v/c): | 0.325 |

**Intersection Setup**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Approach | Northbound | | Southbound | | Westbound | |
| Lane Configuration |  | |  | |  | |
| Turning Movement | Thru | Right | Left | Thru | Left | Right |
| Lane Width [ft] | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| No. of Lanes in Entry Pocket | 0 | 1 | 1 | 0 | 0 | 1 |
| Entry Pocket Length [ft] | 100.00 | 100.00 | 95.00 | 100.00 | 100.00 | 100.00 |
| No. of Lanes in Exit Pocket | 0 | 0 | 0 | 1 | 0 | 0 |
| Exit Pocket Length [ft] | 0.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 |
| Speed [mph] | 40.00 | | 40.00 | | 40.00 | |
| Grade [%] | 0.00 | | 0.00 | | 0.00 | |
| Curb Present | No | | No | | No | |
| Crosswalk | No | | No | | No | |

**Volumes**

| Name | Brentwood Blvd | | Main S | | Delta Rd | |
|---|---|---|---|---|---|---|
| Base Volume Input [veh/h] | 562 | 98 | 112 | 445 | 1 | 2 |
| Base Volume Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Heavy Vehicles Percentage [%] | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| Growth Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| In-Process Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Site-Generated Trips [veh/h] | 54 | 16 | 28 | 31 | 9 | 16 |
| Diverted Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Pass-by Trips [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Existing Site Adjustment Volume [veh/h] | 26 | 0 | 0 | 16 | 0 | 0 |
| Other Volume [veh/h] | 7 | 0 | 0 | 0 | 4 | 0 |
| Right Turn on Red Volume [veh/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Hourly Volume [veh/h] | 649 | 114 | 140 | 492 | 14 | 18 |
| Peak Hour Factor | 0.9400 | 0.9400 | 0.9100 | 0.9100 | 0.9500 | 0.9500 |
| Other Adjustment Factor | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Total 15-Minute Volume [veh/h] | 173 | 30 | 38 | 135 | 4 | 5 |
| Total Analysis Volume [veh/h] | 690 | 121 | 154 | 541 | 15 | 19 |
| Presence of On-Street Parking | No | No | No | No | No | No |
| On-Street Parking Maneuver Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| Local Bus Stopping Rate [/h] | 0 | 0 | 0 | 0 | 0 | 0 |
| v_do, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_di, Inbound Pedestrian Volume crossing m | 0 | | 0 | | 0 | |
| v_co, Outbound Pedestrian Volume crossing | 0 | | 0 | | 0 | |
| v_ci, Inbound Pedestrian Volume crossing mi | 0 | | 0 | | 0 | |
| v_ab, Corner Pedestrian Volume [ped/h] | 0 | | 0 | | 0 | |
| Bicycle Volume [bicycles/h] | 0 | | 0 | | 0 | |

**Intersection Settings**

| | |
|---|---|
| Located in CBD | Yes |
| Signal Coordination Group | - |
| Cycle Length [s] | 90 |
| Coordination Type | Free Running |
| Actuation Type | Fully actuated |
| Offset [s] | 0.0 |
| Offset Reference | Lead Green - Beginning of First Green |
| Permissive Mode | SingleBand |
| Lost time [s] | 0.00 |

**Phasing & Timing**

| Control Type | Permissive | Permissive | Protected | Permissive | Permissive | Permissive |
|---|---|---|---|---|---|---|
| Signal Group | 6 | 0 | 5 | 2 | 4 | 0 |
| Auxiliary Signal Groups | | | | | | |
| Lead / Lag | - | - | Lead | - | Lead | - |
| Minimum Green [s] | 5 | 0 | 5 | 5 | 5 | 0 |
| Maximum Green [s] | 30 | 0 | 30 | 60 | 30 | 0 |
| Amber [s] | 4.4 | 0.0 | 3.0 | 4.4 | 4.4 | 0.0 |
| All red [s] | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 |
| Split [s] | 0 | 0 | 0 | 0 | 0 | 0 |
| Vehicle Extension [s] | 3.0 | 0.0 | 3.0 | 3.0 | 3.0 | 0.0 |
| Walk [s] | 5 | 0 | 0 | 5 | 5 | 0 |
| Pedestrian Clearance [s] | 10 | 0 | 0 | 10 | 17 | 0 |
| Delayed Vehicle Green [s] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rest In Walk | No | | | No | No | |
| I1, Start-Up Lost Time [s] | 2.0 | 0.0 | 2.0 | 2.0 | 2.0 | 0.0 |
| I2, Clearance Lost Time [s] | 3.4 | 0.0 | 2.0 | 3.4 | 3.4 | 0.0 |
| Minimum Recall | No | | No | No | No | |
| Maximum Recall | No | | No | No | No | |
| Pedestrian Recall | No | | No | No | No | |
| Detector Location [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector Length [ft] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Exclusive Pedestrian Phase**

| | |
|---|---|
| Pedestrian Signal Group | 0 |
| Pedestrian Walk [s] | 0 |
| Pedestrian Clearance [s] | 0 |

**Lane Group Calculations**

| Lane Group | C | R | L | C | L | R |
|---|---|---|---|---|---|---|
| C, Cycle Length [s] | 29 | 29 | 29 | 29 | 29 | 29 |
| L, Total Lost Time per Cycle [s] | 5.40 | 5.40 | 4.00 | 5.40 | 5.40 | 5.40 |
| l1_p, Permitted Start-Up Lost Time [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| l2, Clearance Lost Time [s] | 3.40 | 3.40 | 2.00 | 3.40 | 3.40 | 3.40 |
| g_i, Effective Green Time [s] | 9 | 9 | 4 | 17 | 1 | 1 |
| g / C, Green / Cycle | 0.32 | 0.32 | 0.12 | 0.59 | 0.04 | 0.04 |
| (v / s)_i Volume / Saturation Flow Rate | 0.22 | 0.08 | 0.10 | 0.17 | 0.01 | 0.01 |
| s, saturation flow rate [veh/h] | 3197 | 1427 | 1599 | 3197 | 1599 | 1427 |
| c, Capacity [veh/h] | 1040 | 464 | 200 | 1878 | 67 | 60 |
| d1, Uniform Delay [s] | 8.47 | 7.26 | 12.35 | 2.99 | 13.51 | 13.56 |
| k, delay calibration | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| I, Upstream Filtering Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| d2, Incremental Delay [s] | 0.73 | 0.30 | 6.09 | 0.08 | 1.65 | 2.96 |
| d3, Initial Queue Delay [s] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rp, platoon ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PF, progression factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**Lane Group Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| X, volume / capacity | 0.66 | 0.26 | 0.77 | 0.29 | 0.22 | 0.32 |
| d, Delay for Lane Group [s/veh] | 9.20 | 7.55 | 18.44 | 3.07 | 15.16 | 16.53 |
| Lane Group LOS | A | A | B | A | B | B |
| Critical Lane Group | Yes | No | Yes | No | No | Yes |
| 50th-Percentile Queue Length [veh/ln] | 1.04 | 0.32 | 0.98 | 0.02 | 0.10 | 0.13 |
| 50th-Percentile Queue Length [ft/ln] | 25.94 | 7.95 | 24.38 | 0.55 | 2.44 | 3.36 |
| 95th-Percentile Queue Length [veh/ln] | 1.87 | 0.57 | 1.76 | 0.04 | 0.18 | 0.24 |
| 95th-Percentile Queue Length [ft/ln] | 46.69 | 14.31 | 43.89 | 0.98 | 4.39 | 6.04 |

**Movement, Approach, & Intersection Results**

| | | | | | | |
|---|---|---|---|---|---|---|
| d_M, Delay for Movement [s/veh] | 9.20 | 7.55 | 18.44 | 3.07 | 15.16 | 16.53 |
| Movement LOS | A | A | B | A | B | B |
| d_A, Approach Delay [s/veh] | 8.96 | | 6.47 | | 15.92 | |
| Approach LOS | A | | A | | B | |
| d_I, Intersection Delay [s/veh] | 7.99 | | | | | |
| Intersection LOS | A | | | | | |
| Intersection V/C | 0.325 | | | | | |

**Other Modes**

| | | | |
|---|---|---|---|
| g_Walk,mi, Effective Walk Time [s] | 0.0 | 0.0 | 0.0 |
| M_corner, Corner Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| M_CW, Crosswalk Circulation Area [ft²/ped] | 0.00 | 0.00 | 0.00 |
| d_p, Pedestrian Delay [s] | 0.00 | 0.00 | 0.00 |
| l_p,int, Pedestrian LOS Score for Intersection | 0.000 | 0.000 | 0.000 |
| Crosswalk LOS | F | F | F |
| s_b, Saturation Flow Rate of the bicycle lane | 2000 | 2000 | 2000 |
| c_b, Capacity of the bicycle lane [bicycles/h] | 667 | 1333 | 667 |
| d_b, Bicycle Delay [s] | 20.00 | 5.00 | 20.00 |
| l_b,int, Bicycle LOS Score for Intersection | 2.229 | 2.133 | 1.560 |
| Bicycle LOS | B | B | A |

## Sequence

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ring 1 | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 2 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ring 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



# RESPONSES TO COMMENTS

## INTRODUCTION

This Responses to Comments document contains comments received during the public review period of the Sellers Avenue Subdivision Initial Study/Mitigated Negative Declaration (IS/MND).

According to CEQA Guidelines Sections 15073 and 15074, the lead agency must consider the comments received during consultation and review periods together with the IS/MND. However, unlike with an Environmental Impact Report (EIR), comments received on an IS/MND are not required to be attached to the negative declaration, nor must the lead agency make specific written responses to public agencies. Nonetheless, the lead agency has chosen to provide responses to those specific public comments that are related to the environmental analysis contained in the IS/MND. Non-environmental comments have been considered by the City as part of staff's report to the Planning Commission.

## BACKGROUND

The City of Oakley used the following methods to solicit public input on the IS/MND: a Notice of Completion of the IS/MND was posted with the State Clearinghouse on November 3, 2022. The IS/MND was distributed to applicable public agencies, responsible agencies, and interested individuals. The document was made available electrically on the City's website at, https://www.ci.oakley.ca.us/ceqa-documents/.The public review period ended December 5, 2022.

## LIST OF COMMENTERS

The City of Oakley received two comment letters during the open comment period on the IS/MND for the proposed project. The comment letters were received from the following representatives and are included in the Responses to Comments section below:

Letter 1 .....Gavin McCreary, Department of Toxic Substances Control
Letter 2 ..... Peter Minkel, Central Valley Water Quality Control Board

## RESPONSES TO COMMENTS

The Responses to Comments below includes each comment letter, as well as responses to each comment. Each bracketed comment letter is followed by numbered responses to each bracketed comment. Where revisions to the IS/MND text were made, new text is double underlined and deleted text is ~~struck through~~.

All such revisions to the IS/MND are relatively minor and do not affect the adequacy of the conclusions presented therein. CEQA Guidelines Section 15073.5 states the following regarding recirculation requirements for negative declarations:

(c) Recirculation is not required under the following circumstances:

(1) Mitigation measures are replaced with equal or more effective measures pursuant to Section 15074.1.

(2) New project revisions are added in response to written or verbal comments on the project's effects identified in the proposed negative declaration which are not new avoidable significant effects.

(3) Measures or conditions of project approval are added after circulation of the negative declaration which are not required by CEQA, which do not create new significant environmental effects and are not necessary to mitigate an avoidable significant effect.

(4) New information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration.

Based on the above criteria and the responses to comments included herein, pursuant to CEQA Guidelines Section 15073.5, recirculation of the IS/MND is not warranted.

**Letter 1**

***Yana Garcia***
Secretary for
Environmental Protection

Department of Toxic Substances Control

Meredith Williams, Ph.D.
Director
8800 Cal Center Drive
Sacramento, California 95826-3200

***Gavin Newsom***
Governor

**SENT VIA ELECTRONIC MAIL**

December 5, 2022

Mr. Ken Strelo
Planning Manager
City of Oakley
Planning Division
3231 Main Street
Oakley, CA 94561
Strelo@ci.oakley.ca.us

MITIGATED NEGATIVE DECLARATION FOR SELLERS AVENUE SUBDIVISION – DATED NOVEMBER 2022 (STATE CLEARINGHOUSE NUMBER: 2022110067)

Dear Mr. Strelo:

**1-1** The Department of Toxic Substances Control (DTSC) received a Mitigated Negative Declaration (MND) for the Sellers Avenue Subdivision (Project). The Lead Agency is receiving this notice from DTSC because the Project includes one or more of the following: groundbreaking activities, work in close proximity to a roadway, presence of site buildings that may require demolition or modifications, importation of backfill soil, and/or work on or in close proximity to an agricultural or former agricultural site.

DTSC recommends that the following issues be evaluated in the Hazards and Hazardous Materials section of the MND:

**1-2** 1. A State of California environmental regulatory agency such as DTSC, a Regional Water Quality Control Board (RWQCB), or a local agency that meets the requirements of Health and Safety Code section 101480 should provide regulatory concurrence that the Project site is safe for construction and the proposed use.

**1-3** 2. The MND should acknowledge the potential for historic or future activities on or near the project site to result in the release of hazardous wastes/substances on the project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the

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**Letter 1**
**Cont'd**



**1-3 Cont'd**

contamination, and the potential threat to public health and/or the environment should be evaluated. The MND should also identify the mechanism(s) to initiate any required investigation and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.

**1-4**

3. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil DTSC, recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project described in the MND.

**1-5**

4. Surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk for buildings or other structures to be demolished as part of the Project. Removal, demolition and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 *Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers*.

**1-6**

5. If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to DTSC's 2001 *Information Advisory Clean Imported Fill Material*.

**1-7**

6. The MND acknowledges that the Project site has been used for agricultural related activities and that the project applicant shall complete testing of on-site soils for organochlorine pesticides and arsenic. A State of California environmental regulatory agency or a local agency that meets the requirements of H&SC section 101480 should provide regulatory concurrence on the sampling plans, conclusion, and recommendations. DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)*.

**Letter 1**
**Cont'd**



DTSC appreciates the opportunity to comment on the MND. Should you choose DTSC to provide oversight for any environmental investigations, please visit DTSC's Site Mitigation and Restoration Program page to apply for lead agency oversight. Additional information regarding voluntary agreements with DTSC can be found at DTSC's Brownfield website.

**1-8**

If you have any questions, please contact me at (916) 255-3710 or via email at Gavin.McCreary@dtsc.ca.gov.

Sincerely,



Gavin McCreary
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

## LETTER 1: GAVIN MCCREARY, DEPARTMENT OF TOXIC SUBSTANCES CONTROL

### Response to Comment 1-1
The comment is an introductory statement and does not address the adequacy of the IS/MND.

### Response to Comment 1-2
As required by Mitigation Measures IX-1, IX-2, and IX-3, the project site will be evaluated to verify whether the site is safe for construction, subject to approval by the City of Oakley Planning Division. The comment does not directly address the adequacy of the IS/MND, and the suggestion has been forwarded to the decision-makers for their consideration.

### Response to Comment 1-3
The discussion on pages 51 through 53 of the IS/MND evaluates the potential for historic or future activities on or near the project site to result in the release of hazardous materials on the project site.

As noted therein, operations of the proposed residential uses are not expected to result in the release of any hazardous materials. Due to the regulations governing the use of potentially hazardous household products (i.e., cleaning products, fertilizers, etc.) and the amount that could reasonably be used on the site, routine use of such products would not represent a substantial risk to public health or the environment.

The project site was historically used for agricultural purposes and, as a result, Mitigation Measure IX-1 is required to ensure that exposure to arsenic and/or organochloride pesticides does not occur during project development. In addition, the existing on-site building has the potential to contain asbestos and/or lead, and, as a result, Mitigation Measure IX-2 is required. Finally, given the potential presence of an on-site septic system and/or well, Mitigation Measure IX-3 is required to ensure proper removal. Implementation of all required mitigation measures would ensure that historic activities on the project site do not result in the release of any hazardous materials.

### Response to Comment 1-4
In general, it is anticipated that lead levels would be present in soil throughout the urbanized area of the City of Oakley due to the use of lead in gasoline for many years, as well as in paint and other materials generally found in an urbanized area. In the case of any project site on which the City identifies specific uses that may lead to site-specific lead contamination, such as prior auto repair or garage facilities, the City would implement a site-specific response. The project site has not been subject to past uses that would lead to site-specific lead contamination in soils and, as a result, testing for lead in on-site soils is not warranted. The comment does not directly address the adequacy of the IS/MND, and the suggestion has been forwarded to the decision-makers for their consideration.

### Response to Comment 1-5
The discussion on page 52 of the IS/MND has been revised as follows to address the potential presence of mercury or polychlorinated biphenyl caulk in the existing on-site building:

> Additionally, as noted in the Cultural Resources Study prepared for the proposed project, the on-site farm buildings date to at least the early 1940s. As the buildings were built prior to the federal ban on materials such as lead-based paint (LBP) and/or asbestos containing

materials, the potential exists for such materials to exist on and/or within the structures. LBP is defined as any paint, varnish, stain, or other applied coating that has one milligram per cubic centimeter or greater (5,000 micrograms per gram or 5,000 parts per million) of lead by federal guidelines. Lead is a highly toxic material that may cause a range of serious illnesses, and in some cases death. In buildings constructed after 1978, LBP is unlikely to be present. Structures built prior to 1978 and especially prior to the 1960s should be expected to contain LBP. Asbestos is the name for a group of naturally occurring silicate minerals that are considered to be "fibrous" and, through processing, can be separated into smaller and smaller fibers. When inhaled, the material caused serious illness. For buildings constructed prior to 1980, the Code of Federal Regulations (29 CFR 1926.1101) states that all thermal system insulation (boiler insulation, pipe lagging, and related materials) and surface materials must be designated as "presumed asbestos-containing material" unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act. Asbestos-containing materials could include, but are not limited to, plaster, ceiling tiles, thermal systems insulation, floor tiles, vinyl sheet flooring, adhesives, and roofing materials. Caulk containing polychlorinated biphenyls (PCBs) was commonly used in building construction practices between 1950 and 1970 and, thus, may be presented in the existing building.[1] Finally, the existing building may include items that contain mercury, such as gas pressure regulators or thermostats. Therefore, demolition of the on-site structures could present a potential hazard risk related to LBP, asbestos, PCB-containing caulk, or mercury.

As already required by Mitigation Measure IX-2, testing for the presence of asbestos-containing materials and lead-based paint is required prior to any demolition activities. In response to the comment, Mitigation Measure IX-2 has been amplified as follows:

*IX-2. Prior to issuance of a demolition permit by the City for any on-site structures, the project applicant shall provide a site assessment that determines whether any structures to be demolished contain asbestos-containing materials (ACMs), mercury, polychlorinated biphenyl (PCB) caulk, or lead-based paint (LBP). Sampling shall be conducted in accordance with the California Department of Toxic Substances Control's 2006 Interim Guidance Evaluation of School Sites with Potential Contamination from Lead based Paint, Termiticides, and Electrical Transformers. If the on-site structures do not contain ~~either~~ any of the foregoing materials, further mitigation is not required; however, if ACMs, mercury, PCB caulk, or LBP are identified, the materials shall be removed and disposed of by a licensed and certified contractor in accordance with California Air Resources Board recommendations and OSHA requirements. Work practice standards generally include appropriate precautions to protect construction workers and the surrounding community, and appropriate disposal methods for construction waste in accordance with federal, State, and local regulations. The results of the site assessment, as well as verification of proper disposal, if warranted, shall be submitted to the City's Planning Division for review and approval.*

The foregoing revisions do not alter the analysis or conclusions presented in the IS/MND.

## Response to Comment 1-6

[1] U.S. Environmental Protection Agency. *PCBs in Caulk and Residential Demolition*. Available at: https://www.epa.gov/large-scale-residential-demolition/pcbs-caulk-and-residential-demolition#:~:text=Caulk%20containing%20potentially%20harmful%20polychlorinated,found%20in%20single%2Dfamily%20homes.. Accessed December 2022.

Based on preliminary grading plans, the import of fill is not anticipated for construction of the proposed project. Nevertheless, should imported fill be required, the location selling fill utilized for the proposed project would be required to comply with all applicable State regulations, thus ensuring that the imported soil is free of contamination. The comment does not directly address the adequacy of the IS/MND, and the suggestion has been forwarded to the decision-makers for their consideration.

## Response to Comment 1-7

As required by Mitigation Measure IX-1, testing of on-site soils for the presence of organochloride pesticides is required prior to any ground-disturbing activities. In response to the comment, Mitigation Measure IX-1 has been clarified as follows:

> *IX-1.* *Prior to initiation of ground-disturbing activities, the project applicant shall complete sampling and testing of on-site soils for organochlorine pesticides (OCPs) and arsenic in accordance with the California Department of Toxic Substances Control's 2009 Interim Guidance for Sampling Agricultural Properties (Third Revision) and U.S. Environmental Protection Agency (USEPA) Method 8081A, respectively. In the event that soil is determined to be hazardous by exceeding the USEPA Regional Screening Level for residential exposure scenarios, the soil shall be transported and disposed of at a Class I facility permitted by the California Department of Toxic Substances Control. Hazardous waste shall be transported to disposal by a licensed hazardous waste hauler under a uniform hazardous waste manifest. A State of California environmental regulatory agency or a local agency that meets the requirements of Health and Safety Code Section 101480 shall provide regulatory concurrence on the sampling plans, conclusion, and recommendations. The results of soil sampling and analysis, as well as verification of proper remediation and disposal, if warranted, shall be submitted to the City's Planning Division for review and approval.*

The foregoing revisions do not alter the analysis or conclusions presented in the IS/MND.

## Response to Comment 1-8

The comment is a concluding statement and does not address the adequacy of the IS/MND.

**Letter 2**

CALIFORNIA Water Boards

GAVIN NEWSOM GOVERNOR
YANA GARCIA SECRETARY FOR ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

5 December 2022

Ken Strelo
City of Oakley Planning Division
3231 Main Street
Oakley, CA 94561
*Strelo@ci.oakley.ca.us*

City of Oakley
Planning Division

DEC 05, 2022

RECEIVED

**COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, SELLERS AVENUE SUBDIVISION PROJECT, SCH#2022110067, CONTRA COSTA COUNTY**

Pursuant to the State Clearinghouse's 3 November 2022 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the Sellers Avenue Subdivision Project, located in Contra Costa County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore, our comments will address concerns surrounding those issues.

**I. Regulatory Setting**

**Basin Plan**

2-1 The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of

**Letter 2**
**Cont'd**



Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

**Antidegradation Considerations**
All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

**2-1 Cont'd**

*Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.*

*This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.*

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

**II. Permitting Requirements**

**Construction Storm Water General Permit**
Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

**Letter 2**
**Cont'd**



**2-1 Cont'd**

**Phase I and II Municipal Separate Storm Sewer System (MS4) Permits**[1]
The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

**Clean Water Act Section 404 Permit**
If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

**Clean Water Act Section 401 Permit – Water Quality Certification**
If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at:

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

**Letter 2**
**Cont'd**



**2-1**
**Cont'd**

https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

**Waste Discharge Requirements – Discharges to Waters of the State**
If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at:
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

**Dewatering Permit**
If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

**Limited Threat General NPDES Permit**
If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will

**Letter 2**
**Cont'd**



require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

**2-1 Cont'd**

**NPDES Permit**

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter Minkel

Peter Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

## LETTER 2: PETER MINKEL, CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

### Response to Comment 2-1

The comment generally presents permits and regulations related to protecting the quality of groundwater and waters of the State. The proposed project would be subject to all applicable permits and regulations. The comment does not address the adequacy of the IS/MND and has been noted for the record.

OAKLEY
CALIFORNIA

# STAFF REPORT

**DATE:** April 4, 2023

**TO:** Joshua McMurray, City Manager

*Approved and Forwarded to the Planning Commission*

**FROM:** Ken Strelo, Planning Manager

**SUBJECT:** **Sellers Avenue Subdivision 9614 Rezone, Vesting Tentative Map, Final Development Plan, and Design Review (RZ 01-22, TM 01-22, FDP 01-22, DR 02-22) – Request for approval of a Rezone to P-1 (Planned Unit Development) District, a Vesting Tentative Map to subdivide approximately 20.42 acres into 77 single family residential lots, a Final Development Plan in conjunction with the P-1 District, and Design Review. APN 033-150-013.**

## Summary

This is an application by MLC Holdings ("Applicant") requesting approval of: 1) a Rezone (RZ 01-22) to amend an existing P-1 District; 2) a Vesting Tentative Map (TM 01-22) subdividing approximately 20.42 acres into 77 single family residential lots, private streets, stormwater detention treatment area, and neighborhood park; 3) a Final Development Plan (FDP 01-22) in conjunction with the project's P-1 District; and 4) Design Review (DR 01-22) for house plans, and conceptual landscape plans related to the overall subdivision, typical front yards, and the neighborhood park. The project site is located at 5911 Sellers Avenue and is zoned P-1 (Planned Unit Development) District. (APN: 033-150-013).

## Background

### General Plan

Residential Low (RL) – Per Oakley General Plan Table 2-2: Land Use Designations, the "Residential Low (RL) designation provides for moderate density, single-family residential development [between the densities of 2.3 to 3.8 dwelling units per acre]. These neighborhoods will more closely resemble a typical suburban development with spacious yards and little resemblance to a rural neighborhood. Primary permitted land uses include detached single-family homes and accessory structures. Public and semi-public uses and similar and compatible uses are also allowed." The RL designation lies between the Residential Very Low (RV) (maximum 2.3 dwelling units per acre) designation, which provides for traditional, large lot single family residential development and the Residential Low/Medium (RLM) (maximum 5.5 dwelling units per acre), which provides for moderately dense single family residential development that is

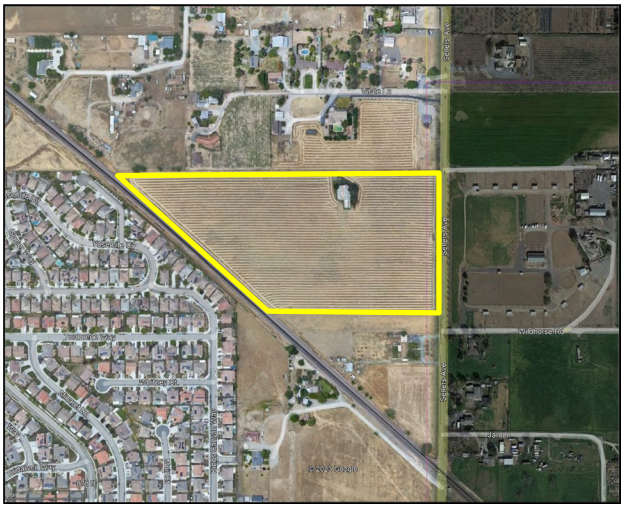
consistent with suburban uses. There is often overlap between the type of development envisioned within land use designations adjacent or near each other along the density scale.

Zoning

P-1 (Planned Unit Development) District – P-1 Districts are normally tied to a specific development project and often contain different development regulations, such as minimum lot sizes and/or required yard setbacks from those found in the conventional zoning districts. They are typically found as part of a large-scale development, an infill development, or a General Plan special area of concern. An existing P-1 District covers the current project site. It was originally adopted with a former single-family development and vesting tentative map. The tentative map for that project has since expired and since the currently proposed project envisions a new plan, a new P-1 District is required to be adopted.

Existing Conditions and Surrounding Land Uses

*Figure 1. Project site and surrounding properties (Google Earth, Februray 11, 2022)*



The project is located along the western boundary of Sellers Avenue, which is also the City limit line at the project location. The project site frontage along Sellers Avenue runs 728 feet. From there, the property continues west where it intercepts the BNSF (Burlington Northern Santa Fe) railroad tracks which run in a northwest-southeast direction. The site currently exists as a ruderal field that undergoes discing for maintenance. It also includes a couple of abandoned agricultural buildings that sit about 400 feet west of Sellers Avenue and near the site's northern property line. Rural residential properties lie to the north, south, and east. Those located in the City are designated as Residential Very Low (RV) in the Oakley General Plan. An existing single family residential development is located on the other side of the railroad tracks. That development is designated as Residential Low Medium (RLM) in the Oakley General Plan. A few other parcels further south of the tracks have an approved subdivision project and two existing rural residential uses. This project site is designated Residential Low, the same as the proposed project site. Figure 1 shows the project site and surrounding properties.

Preliminary General Plan Amendment

The applicant for this project also filed a Preliminary General Plan Amendment (PGPA) application (PA 05-21) with the Oakley Planning Division in 2021. After receiving feedback on another similar PGPA (also filed by the applicant), the applicant decided to not proceed with a PGPA Work Session for this project, and instead later file a vesting tentative map and associated entitlements with a density compliant with the existing land use designation of Residential Low (RL).

## Project Description

Rezone (RZ 01-22)

The project application includes a request for approval of a rezone consisting of an amendment from an existing P-1 District approved for the now expired tentative map and development plan to a new P-1 District tied to the proposed tentative map and other proposed. This rezone would approve the project's P-1 District in conjunction with the Vesting Tentative Map and Development Plan, which will establish the lot layout and sizes, minimum setbacks, street network, and ingress/egress for the project area.

The most likely conventional district that is compatible with the project's land use designation would be the R-10 District, a single-family residential district with a minimum lot size of 10,000 square feet. The proposed P-1 District would allow for flexibility in the development standards related to minimum lot sizes and required yard setbacks. A P-1 District has no impact on the allowable density of the underlying General Plan Land Use Designation. Table 1 provides a comparison of the project's P-1 District and the conventional R-10 District relative development standards.

*Table 1. Comparison of Project's P-1 District and R-10 District Development Standards*

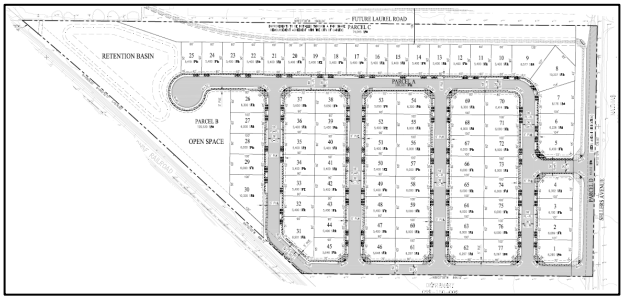
| | Min. Lot Size (sf.) | Front Yard Setback (ft.) | Side Yard Setback (ft.) | Corner Side Yard Setback (ft.) | Rear Yard Setback (ft.) |
|---|---|---|---|---|---|
| **Project's P-1 District** | Per the VTM (5,400 smallest lot) | 12 (house)<br>18 (garage) | 5 | Not specified | 14 |
| **R-10 District** | 10,000 | 20 (all) | 5 (20 aggregate) | 15 | 15 |

Vesting Tentative Map (TM 01-22)

The proposed project would result in the subdivision of approximately 20.42 acres into a new single-family residential subdivision of 77 lots, including private streets, stormwater detention treatment area, and a neighborhood park (See Figure 2). The project will also be dedicating approximately 2.73 acres of land along Sellers Avenue and the future Laurel Road extension right of way along the project's northern boundary. Approximately 2.76 acres will be required for the stormwater detention basin and open space/park area. As proposed, the gross density (includes gross acreage before right

of way dedication, parks, landscaping, etc.) would be approximately 3.77 dwelling units per gross acre (du/ga) with residential lot sizes ranging between 5,400 (32 lots) and 10,237 (Lot 8) square feet (sf), and an average residential lot size of approximately 5,970 sf.

*Figure 2. Vesting Tentative Map*




Access to the neighborhood streets would be via Sellers Avenue in two locations; one near the center of the project frontage between Lots 4 and 5, and another at the southern boundary of the project frontage (south of Lot 1). Internal roads would consist of two east-west roads connecting four north-south roads. A cul-de-sac would terminate on the western edge of the property near the detention basin and park. The east-west road along the southern boundary could potentially be designed into the undeveloped property to the south at a future date. The applicant has proposed a homeowner's association to maintain the detention basin, park area, and all common areas of landscaping.

Dedication and improvements to Sellers Avenue will result in a 47-foot pavement width, including approximately 17 feet of the existing pavement on the east side of the centerline, and 32 feet of landscaping and a sidewalk on the project side. The applicant will also be dedicating 57 feet along the northern property line for the future improvements for the Laurel Road extension right of way, which will be a City-sponsored project crossing Laurel Road over the railroad tracks and connecting it to Sellers Avenue. The project will not be installing any of the Laurel Road improvements at this time, except for a sound wall on the private properties.

Final Development Plan (FDP 01-22)

A Final Development Plan ("FDP") is a component of a P-1 District. The applicant is choosing to combine the FDP application with the Rezone application, which is allowed per the "Planned Unit Development (P-1)" section of the Oakley Municipal Code (Section 9.1.1002). Typically, the FDP includes the information provided on the Vesting Tentative Map and its related plans, as well as other information such as details on housing or elevations and heights of non-residential buildings. When FDPs are processed after a P-1 District is formed, the P-1 District will usually include a Preliminary Development Plan; however, an applicant may submit an FDP with a P-1 District rezone application so that it may be considered in conjunction with the rest of the project entitlements, such as what has occurred with this application. The proposed FDP includes a Development Plan that shows plotting of the different floor plans. The FDP will also establish the general neighborhood layout design, number and size of lots, types of residential structures, etc. Any requested change to the approved FDP would be reviewed by the Planning Commission/City Council where that body would determine whether the change is substantial enough to warrant a public hearing in order

to further review the request. For this project, each of the three proposed plans are plotted at least 25 times, with Plans 2 and 3 each plotted 26 times.

Design Review (DR 01-22

As part of the Design Review application, the applicant is proposing house floor plans, architecture, color and material schemes, and landscape plans, including for the overall site, typical front yards, and the proposed park area. The Design Review also includes details for proposed plants, including trees, proposed along Sellers Avenue, project streets, and in the park area. Illustrations for good neighbor fencing, the boundary/sound wall proposed and conditioned along various portions of the perimeter of the development, a design for a cluster mailbox, and enhanced paving are also included.

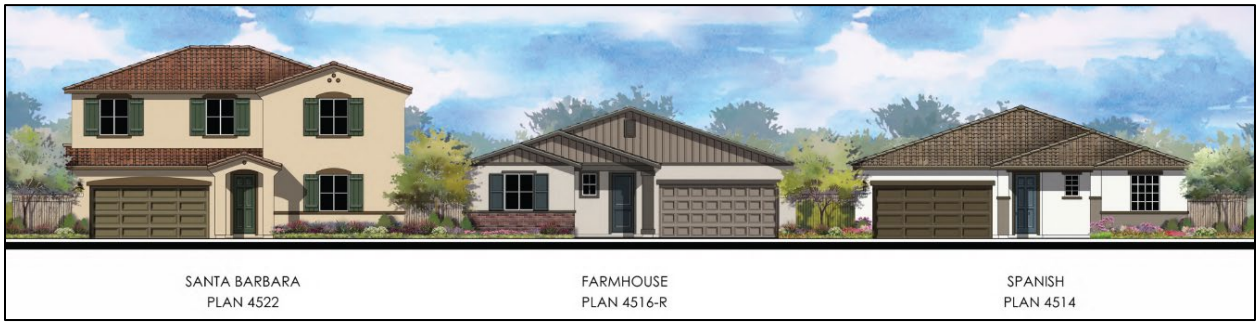
The project includes three different floor plans ranging from 2,054 sf. to 2,493 sf. of livable area consisting of two one-story and one two-story plans. All plans include a front-facing 2-car garage door, and a minimum of four bedrooms and 2.5 bathrooms. Table 2 provides a summary of the proposed floor plans.

*Table 2. Summary of Proposed Floor Plans*

| | Livable sf. | Livable sf. by Floor (1st/2nd) | Rooms | Bathrooms | Garage (sf./cars) |
|---|---|---|---|---|---|
| **Plan 1 (4514)** | 2,054 | 2,054 / N/A | 4 bedrooms | 2.5 | 419 / 2 |
| **Plan 1 (4516)** | 2,176 | 2,176 / N/A | 4 bedrooms | 2.5 | 421 / 2 |
| **Plan 3 (4522)** | 2,493 | 1,135 / 1,358 | 4 bedrooms<br>1 loft | 3 | 420 / 2 |

Three architectural styles are used for the three floor plans. They are referred to as Spanish (Elevation “A”), Santa Barbara (Elevation “B”), and Farmhouse (Elevation “C”). Each of the three architectural styles has three color and material themes tied specifically to that style. Figure 3 shows the conceptual streetscape per the Applicant’s Plans.

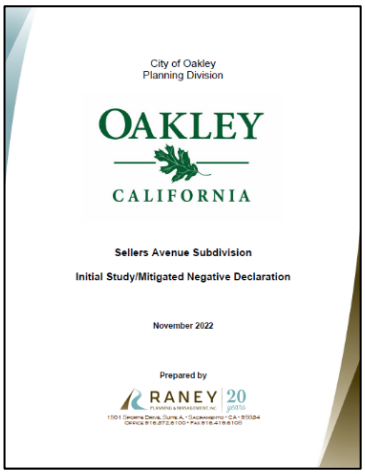
*Figure 3. Conceptual Streetscape per Applicant’s Plans*



The Overall Landscape Plan shows approximately 170 new trees made up of 11 different species, including front yard trees located near the private street lines. There is also an average of one ornamental tree located in each private front yard near the house. Twenty-one 24" box trees are proposed along Sellers Avenue. Sound walls are labeled to be installed along Sellers Avenue, the railroad tracks, and the future improvement of Laurel Road. A condition of approval has been proposed that would require the height of the walls along Sellers Avenue and the railroad tracks (6- and 12-feet high, respectively) with the added requirement of an acoustical analysis to determine the required height of the wall along the future Laurel Road extension right of way that is consistent with the thresholds of the General Plan.

## Environmental Review

California Environmental Quality Act Compliance




An Initial Study ("IS") and Mitigated Negative Declaration ("MND") have been prepared for this project pursuant to the California Environmental Quality Act ("CEQA"). Raney Planning and Management conducted the CEQA analysis survey on behalf of the City of Oakley. The Notice of Intent ("NOI") to Adopt an MND and IS was circulated for public review and comment from November 3, 2022 to December 5, 2022. It was filed with the County Clerk and Governor's Office of Planning and Research ("OPR"), distributed to over 60 public agencies and parties requesting such notice, and posted in the same manner as a Notice of Public hearing, which is at locations throughout the City and at the project site. The NOI provided a summary of the project as well as methods to access the IS/MND for review and comment.

Two comment letters were received in response to the NOI posting; one from the Department of Toxic Substances Control and one from the Central Valley Water Quality Control Board. The City's CEQA consultants prepared a Response to Comments, which has been included as Exhibit "A" to the IS/MND attached to this Staff Report. As stated in the document, based on the responses to comment, recirculation of the IS/MND was not warranted.

Analysis in the IS found seven (7) of the 21 impact categories require mitigation to reduce potential impacts to a less than significant level. All other 14 impact categories were found to have either no impacts or a less than significant impacts based on CEQA thresholds of significance. A summary of the mitigation measures can be found in the Mitigation Monitoring Program, included as Exhibit "A" to the Proposed Resolution attached to this Staff Report.

The Planning Commission is making recommendations to the City Council on the entitlements associated with this application. Approval of the entitlements requires

adoption of the CEQA IS/MND. Recommendation for adoption of the MND is included in the proposed resolution for recommendation for approval of the other entitlements associated with the project. The NOI and IS/MND are included as attachments to this Staff Report.

Habitat Conservation Plan/Natural Community Conservation Plan

This project is subject to the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan ("HCP/NCCP" or "HCP Plan"). Projects that are subject to the HCP Plan are required to submit a Planning Survey Report ("PSR") as part of the project application. The contents of the PSR help guide the project through compliance with both the California and Federal Endangered Species Act by assuming presence of certain plant and animal species and requiring additional surveys to be done prior to any ground disturbance. In addition, whether species are found or not, the project must pay development impact fees for each acre, or fraction thereof, of the project area. Those development impact fees are used to help create, install, and maintain habitat outside of the Urban Limit Line, as well as administer the HCP Plan. The project would contribute $394,191.55 to the HCP/NCCP program under the impact fees current as of the date of this staff report.

## Analysis

Rezone

When approving an application for a rezone to P-1 District, the City Council shall be satisfied that the following are true (summarized from OMC section 9.1.1002):

- The applicant intends to start construction within two years from the effective date of the zoning change;
- The development is consistent with the General Plan;
- If residential, it has sustained desirability and stability, and is in harmony with the character of surrounding neighborhoods; and
- The development of a harmonious, integrated plan justifies exceptions from the normal application of the OMC.

The Applicant has stated they plan to pursue development of the site if market conditions support it. The density and type of development is consistent with the General Plan, and similar to newer single family residential neighborhoods that must address on-site stormwater detention and that provide for on-site park facilities. The internal road network will only serve the project site; however, it is planned to consist of private road that will be maintained through a homeowner's association and not public funds. The type of development associated with this density and lot size is expected to be desirable in that it includes a variety of homes sizes, and development includes a small pocket park. It falls somewhere in the middle of the density ranges of nearby residential neighborhoods. The density is lower than the existing neighborhood across

the railroad tracks to the east, and it is higher than what is designated to the north and south. It is within one density range of all surrounding properties within the City of Oakley. Due to the significant requirement for dedication along Sellers Avenue and the future right of way for the Laurel Road extension (approximately 2.73 acres), and the approximately 2.76 acres used by the stormwater detention treatment area and pocket park, the P-1 District is justified to allow for project-specific development regulations in order to design a feasible project within the allowable range of the General Plan land use designation of RL.

Staff recommends the Planning Commission recommend City Council approval of the proposed Rezone application.

Vesting Tentative Map

The Vesting Tentative Map ("VTM") has been reviewed against all applicable codes including the Subdivision Map Act, General Plan, and the Zoning Ordinance. The VTM's gross density (approximately 3.77 du/ga) falls within the gross density range of the Residential Low (RL) General Plan Land Use Designation of 2.3-3.8 du/ga. The VTM is tied to a P-1 District, which becomes the specific zoning for this development and would result in all proposed lots being considered of standard lot size for this specific development.

The site is physically suitable for the project in that it is accessible, not physically constrained other than the reduction in net developable acres due to right of way dedication and onsite stormwater detention and treatment, is similar to surrounding residentially developed projects, and it is also able to accommodate the proposed density of development in a manner consistent with the underlying land use designation. The subdivision is not expected to result in any serious public health problems. Public improvements are proposed and conditioned to occur as a result of the subdivision, which is a benefit to the public and surrounding residents and property owners of the vicinity. One such improvement will be the dedication and improvement of Sellers Avenue along the project frontage. The project will also dedicate land for the future Laurel Road extension, which is an important element to the City's overall circulation patterns. Staff recommends the Planning Commission recommend City Council approval of the proposed Vesting Tentative Map application, as conditioned.

Final Development Plan

This Final Development Plan ("FDP") makes up the plans that represent the underlying P-1 District. It will set forth the Development (Plotting) Plan, lot layout and sizes, and street network. It will also tie into the elements of the other entitlements, such as the Vesting Tentative Map and Design Review and make those details a part of the overall FDP. Future proposed amendments to the FDP are subject to the discretion of the Planning Commission/City Council as to whether they are substantial enough to require a public hearing or may be approved at a Staff level.

Staff recommends the Planning Commission recommend City Council approval of the proposed Final Development Plan application, as conditioned.

Design Review

Analysis for Design Review refers to the Standards for Review as laid out in OMC section 9.1.1604(f), which focuses on site planning, architecture, landscaping and site elements, and streetscapes. With these standards in mind, the proposed plans were analyzed for consistency with the adopted City of Oakley Residential Guidelines ("Guidelines").

*Neighborhood Layout and Design*

The project has been designed so that all streets are enclosed to houses that will be in this subdivision, except for the possibility of future development to the south where the entire entry street abuts the property line. Due to the existing railroad tracks and future Laurel Road extension, there are no planned connectors to the west or north. Sellers Avenue abuts the east side where two entries are proposed (one that may be shared in the future by the property to the south). None of the houses will front onto Sellers Avenue or the future Laurel Road extension. Sounds walls are proposed along the railroad tracks and Sellers Avenue, and the project has been conditioned to also construct a wall along the future Laurel Road extension right of way subject to an acoustical study.

*Residential Siting and Lot Design*

Residential siting and lot design is important because it can create setback variations and add interest to the streetscape in a neighborhood. The applicant has established a minimum setback of 12 feet to the home and 18 feet to garages from the front property line which, as proposed with the existence of the parkway strip, is the back of sidewalk. Side setbacks are set at a minimum 5 feet and rear setbacks at 14 feet. The P-1 District does not specify a corner side yard setback; however, based on the plotting plan, it appears every corner lot has a home setback at least 10 feet from the corner side yard property line. In the same sense, it appears most lots have an aggregate side yard setback of at least 15 feet with the garage being aligned with the wider of the two side yards possibly allowing for better wide yard access adjacent to the garage, which is consistent with Oakley's Municipal Code related to driveway extensions. Having the wider side yard adjacent to the garage is consistent with Oakley Residential Design Guidelines.

For front yard setback variation, each home's footprint varies so no home will meet at least the minimum setback for the garage or the main home. For example, When the garage is at 18 feet for Plan 2, the living area will be at 14. For Plan 1, with the living area at 12 feet, the garage will be at 22 feet. For Plan 3, with the garage at 18 feet, the living area is at 16.5 feet. None of the proposed homes will result in a setback of the minimum for both the garage and main home. Given the short distance between the garage and back of sidewalk created with an 18-foot setback to garages and a parkway

strip, Staff is recommending the developer replace the parkway strip with a monolithic curb and sidewalk (more analysis on this in the Landscaping and Walls section below) so allow for an additional 5-feet of driveway between the garages and sidewalk.

Building mass is an element of lot siting and design and can greatly affect the aesthetics of the overall neighborhood. For the proposed project, changes in roof materials and design among the same floor plan assist in giving the overall neighborhood more visual variety. Some changes are to the main roof line, while others focus on the projecting elements such as porches or a bedroom. For example, the Spanish style uses a concrete S-tile material designed and is designed with hip roofs at the porches and projecting bedrooms and other elements, while the Santa Barbara style includes the same material in a different color, and rather than hip roofs at the porch and other projecting elements, it shows an open gable. The Farmhouse uses a concrete flat tile material and includes gables filled in with decorative board and batten.

Two common Oakley Design Guidelines look for new single family residential developments to achieve an overall minimum of 20% single-story homes and that at least 50% of all corner lots be single-story homes. Another guidelines is to maintain at least a 15-foot setback between adjacent second story elements. In the case of the proposed project, two of the three plans are single-story and they are plotted on a total of 66% of the lots, but only 6 of the 16 corner lots (approximately 37%). The project has been conditioned to plot at least 8 one-story homes on the 16 corner lots. The proposed development plan shows no situation where two-story homes are side by side, so the minimum 15-foot setback between adjacent two story elements will be implemented.

*Architectural Character*

The architectural character and design of the proposed homes meets several of the design guidelines. There is variation in materials between architectural styles, such as roofing, veneer, and siding, and often more than one secondary exterior material is proposed; however, the use of 360-degree architecture is somewhat inconsistent. It is shown for things such as window trim and dividers, but not used on all the homes when it comes to the elements such as window shutters and gable treatments. The three color schemes for each architectural style complement each other while allowing for uniqueness to any given home with the eyesight of another. There are two garage door designs for all of the homes with the Spanish and Santa Barbara having the same 16-panel design and the Farmhouse with a 32-panel design. There are no options for garage door windows.

Areas for small improvements and better implementation of the design guidelines are summarized below and have been included as conditions of approval that will be subject to the review and approval of the Community Development Director:

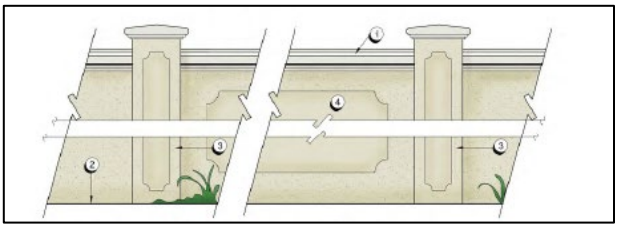
- Exterior lighting specific to each architectural type;

- Increased use of false shutters where feasible on more of the side and rear elevations of those homes to meet the City's 360-degree architectural design guidelines;
- Second-story gables to receive same treatment as front-facing gables on applicable plans; and
- Including a third garage door to be used on either the Spanish or Santa Barbara style and including garage door window options for each style.

*Landscaping and Walls*

The landscape plans provide for a mix of tree species and sizes to be planted along the Sellers Avenue frontage and throughout the subdivision. A parkway strip is planned throughout the subdivision between the street curb and the sidewalk. In recent years, the City has noticed these areas, even in newer developments tend to lack upkeep. For this project, should the parkway strip be considered in final design, the project is conditioned to ensure it becomes part of the homeowner's association's responsibility. An alternative would be to design the project with a monolithic curb and sidewalk. The results of this option would be no parkway strip and an additional five feet of driveway for any given house should the front setback remain the same under both options. Staff recommends the Planning Commission adopt a proposed condition of approval that the applicant redesign the project with a monolithic curb and sidewalk rather than parkway strip for areas adjacent to front or corner side yards. For other common areas, the parkway strip may still be used and shall be maintained by the HOA. It is noted that any change to the parkway strip would also require modification to other related plans since they are all tied to the FDP.

*Figure 4. Pre-Cast Boundary Wall*



The proposed walls for this subdivision (Figure 4) do not quite meet the design criteria for new subdivisions. A condition that requires the walls columns to include stone veneer has been added to the proposed resolution. The stone veneer is proposed to be installed on the side of the columns facing the public view for the walls along Sellers Avenue and the future Laurel Road extension only. The requirement is not included for the wall along the railroad tracks.

Staff recommends the Planning Commission Recommend City Council approval of the proposed Design Review application, as conditioned.

## Findings

Draft findings can be found in the proposed resolution.

## Developer/Community Meeting

In November of 2022, the developer/applicant met with several neighbors that lived near the project site. The neighbors shared comments and requests related to the proposed development. At that meeting, the neighbors provided a list of comments and requests to the applicant that they asked to be considered in the project design. That list was also provided to the City after the meeting. Staff has reviewed the list and while most of the items are reserved for the developer to review and decide whether to implement, whether by direction of the Planning Commission or on their own, there are some requests Staff recommends are not feasible or favorable. These are the requests for: a direct access point to the future Laurel Road extension; and not having a sidewalk on the City side of Sellers Avenue. Another request is already being met, which is walls surrounding the development. The requests for the development entry location, single story homes along Sellers Avenue, larger lots, moving the stormwater basin to along Sellers Avenue, possibility for a reclaimed water irrigation vein access point, and privacy bushes reducing the impact of cars leaving the site on the property east of Sellers Avenue are all surrounding topics that the developer should have the ability to address. A copy of the neighbors' list of items is attached for reference.

## Consistency with the City of Oakley Strategic Plan 27+

The Community and Economic Development Goal includes a Strategic and Thoughtful Growth Objective that states, "Plan and develop Cypress Corridor holistically with improvements and commerce to service new development to ease downtown traffic." Development of this project will bring in new residents needed to support that future commercial growth in places such as the northwest corner of East Cypress Road and Sellers Avenue. It will also provide for much needed right of way for the future Laurel Road extension that will serve the purpose redirecting traffic to and from areas east of Sellers Avenue to Highway 4 and away from the Main Street/East Cypress Road intersection and ultimately downtown (as pass through traffic). Also, this project will be consistent with the Parks and Open Space Goal by providing a new pocket park.

## Fiscal Impact

The approval of these entitlements will not impact the General Fund. This is a developer funded account. All Staff time and City of Oakley generated materials are charged to the developer account funded by the developer.

## Staff Recommendation

Staff recommends the Planning Commission adopt the proposed resolution recommending the City Council approve the project titled, "Sellers Avenue Subdivision 9614 (RZ 01-22, TM 01-22, FDP 01-22, DR 01-22)," as conditioned.

## Attachments

1. Vicinity Map
2. Notice of Public Hearing

3. Applicant's Plans
4. Neighbors' Comments and Requests
5. Sellers Avenue Subdivision - Notice of Intent to Adopt a Mitigated Negative Declaration
6. Sellers Avenue Subdivision - Initial Study/Mitigated Negative Declaration
    a. Exhibit "A": Sellers Avenue Subdivision – Responses to Comments on IS/MND
7. Proposed Resolution
    a. Exhibit "A": Mitigation Monitoring Program

# Minutes of the Oakley Planning Commission Meeting held April 4, 2023

## 1) OPENING MATTERS

### 1.1 Call to Order and Roll Call of the Oakley Planning Commission

Chair Oleksii Chuiko called the meeting to order at 6:30pm in the Oakley City Council Chambers located at 3231 Main Street, Oakley California. Vice Chair Diego Verduzco and Commissioners Leonard Price, Jimmy Ramirez and Jeanne Krieg were also present.

### 1.2 Pledge of Allegiance to the Flag

Commissioner Krieg led the Pledge of Allegiance to the Flag.

### 1.3 Presentation by Mt. Diablo Resource Recovery (MDRR): SB 1383 Rollout in Oakley (Sal Evola & Sarah Davis, Mount Diablo Resource Recovery)

Sal Evola and Sarah Davis with Mount Diablo Resource Recovery provided a PowerPoint presentation.

Commissioner Krieg inquired how it will impact monthly cost to homeowners.

Mr. Evola explained the big increase is already incorporated into last year's rates, effective July 1, 2022, and they are still working on the COLA adjustment.

Chair Chuiko referred to the color and label of bins being consistent throughout the state. He inquired if Oakley is already in compliance.

Mr. Evola confirmed Oakley is 2/3 in compliance; it has green for organics, blue for recycling, but the state requires black or grey for garbage instead of brown so they will work to change out those bins within about 10 years. He mentioned state law didn't require cities and/or rate payers to incur the cost in 1 year; it allowed for 14 years for the bins to be replaced so the City requested replacement over a 10-14 year period to slowly roll out that cost.

Commissioner Ramirez inquired if training videos are bilingual and if the City has the dimensions on record; i.e., the size and radius needed.

Ms. Davis responded yes to both inquiries. She indicated they currently have voice captions for video, but will have a voice component incorporated soon.

Chair Chuiko inquired what happens to properties not currently compliant.

Mr. Evola explained his team's focus is education and outreach. He shared that a lot of Oakley development can accommodate three bins, but they must be careful with high density projects as space to store bins can become more limited.

Ms. Davis added that multifamily housing is where they see difficulty accommodating three bins most frequently because there are space constraints, and they will work with property management to resolve the issue by consolidating. She shared an example of the Acacia

development where the truck could not back up near the end of the street, so they worked with residents to develop a plan for pick up.

## 3) CONSENT CALENDAR

**3.1 Approve Minutes from the Planning Commission Meeting held March 7, 2023 (Libby Vreonis, City Clerk)**

It was moved by Vice Chair Verduzco and seconded by Commissioner Price to approve the minutes. Motion was unanimous and so ordered. (5-0)

## 2) PUBLIC COMMENTS

None.

## 4) PUBLIC HEARINGS

**4.1 Sellers Avenue Subdivision (DeJesus) Rezone (RZ 01-22), Vesting Tentative Map (TM 01-22), Final Development Plan (FDP 01-22), and Design Review (DR 01-22) (Ken Strelo, Planning Manager)**

Planning Manager Ken Strelo presented the staff report and provided a PowerPoint presentation.

Applicant Justin Derby, Vice President of Meritage Homes, was present and available for questions.

Chair Chuiko opened the public hearing.

Chair Chuiko mentioned staff received 3 online comments and persons submitting those comments can speak tonight or their comments will be summarized in the meeting minutes.

Public Comment

Gina Rozinski, resident of Sellers Avenue, provided a handout regarding sound walls. She explained the DeJesus project is one of the first subdivisions along Sellers and the first one along the Laurel Road extension and there are low-density housing, horses, farms that will now be alongside medium-density housing projects. She mentioned the photos of the subdivision on the southeast corner of Cypress and Sellers provide a typical sound wall found on the E. Cypress corridor; the bottom 2 photos are the southern exterior sound wall in public view that faces the southern low-density parcel, and the soundwall is unfinished, unpainted, grey concrete. She mentioned for the DeJesus project, she believes the developer is proposing exterior soundwalls on the Laurel Road extension and Sellers, and that the southern and railroad soundwalls will be more like what is shown in the bottom two photos. She requested the Commission condition the project for the public view of the project with sound wall exteriors that are finished. She mentioned Sellers will always remain rural in nature and is not the same as the E. Cypress corridor; she would like to see a change in the style of sound wall; more of rural nature, similar to Rose, Neroly, Laurel and Carpenter, where there are more masonry soundwalls.

Vince Granberg, Sellers Avenue resident, commented that there is a stormwater treatment area near the railroad tracks that he estimated to be about 10 feet deep, and the railroad is elevated to same amount. He mentioned the differential with vibrations of trains slippage is not good and is asking for trouble as water and dirt can become very liquid. He commented he would like to see the stormdrain upfront near Sellers. He also expressed concern with traffic; there is no traffic lineage differentiating the 2-lane road as there is no striping. He mentioned the speed limit is 50 mph and residents can't get out of their driveways; he is at a dead stop to go into that speed of traffic. He suggested striping a double yellow line and reducing the speed limit to 35-40 mph. He mentioned he believes the City is in violation of the 245-foot agricultural buffer zone with the subdivision on the Baldocchi property.

John de Fremery, Sellers Avenue resident, expressed concern regarding drainage for the property as his land drains onto the property and he doesn't see any drainage for him. He mentioned there is no curb and gutter on the south side and he wants to know how drainage will be resolved. He shared he has a 4-foot-tall fence for livestock, and this doesn't show how many feet of fill will be brought in. He mentioned he doesn't want to be liable for people jumping his fence and getting hurt and he would like to see a masonry wall or at least a fence.

Andrew Mathias, Sellers Avenue resident, read the written comments he emailed to staff into the record. He indicated the Oakley General Plan is flawed; it does not account for existing rural residents and has not adequately allowed for agriculturally zoned areas, making it urban sprawl and creating rural gentrification. He expressed concern regarding traffic. He requested the Commission be sympathetic to the plight of their rural/AG neighborhood and help them mitigate the discomfort this development will create.

Erin Mathias, Sellers Avenue resident, shared the development will front the entire length of her property and she mentioned she sent comments previous regarding the entrance to Wildhorse for emergency access/vehicles rather than daily in/out access. She mentioned many residents struggle with getting out of their properties with the amount of traffic the E. Cypress corridor developments have caused and the speed of traffic, especially with trailers where they must take up two lanes to get out, they are almost rear ended. She mentioned Vince Granberg referred to the Knightsen-Oakley buffer zone. She explained that in 2003, the City of Oakley entered into a contract with the Knightsen Town Advisory Council, orchestrated by LAFCO, to provide 225-feet for a no-build zone along Sellers Avenue toward the urban limit line and the Advisory Council has hired legal counsel at other times to enforce it. She suggested staff can request a copy from LAFCO. She requested lots 4, 5 and 8 be single-story to maintain privacy.

Alvaro Gomez, Sellers Avenue resident, shared he works in construction where safety is emphasized which is his biggest concern with this development. He requested the speed limit be reduced to 35 mph as he already struggles to get in and out of his driveway; he has to be careful of oncoming traffic and people passing when trying to make a left turn. He expressed concern regarding privacy with his backyard 400 feet north of the development. He mentioned traffic will be dumping into Sellers that already has significant traffic before Sellers is widened to 4 lanes and he would like to know what will be done to minimize it. He mentioned he is not sure it is a good idea to develop this property before Sellers is widened.

Madelynn Krebs, Sellers Avenue/Wildhorse Road resident mentioned they live in the country and always knew development would happen, but this seems stark and will impact their quality of life. She explained Wildhorse Road is private and when anything happens with the train, everyone cuts down the road and it is dangerous because kids and horses are on that road, and even though signs are posted to drive 5 mph, vehicles travel 40 mph, so traffic will be a huge

problem for them. She mentioned she appreciates that the developer has a right to develop the property, but not at their expense.

Leo Becerra, Sellers resident, shared he has a family-owned business with horses and with these changes they feel intimidated to walk away from here; they feel unprotected and have never had to have fences but now will have to secure their property. He mentioned they have a lot of kids on the properties and with widening roads and housing it will no longer be secure. He mentioned people take shortcuts through his property to make a circle and vehicles travel at 50 mph. He explained that these are ranch style properties in this neighborhood and residents have spent many years building and maintaining these properties. He requested they provide a secure area, control speed limits, and anything else that can be done.

Chair Chuiko closed the public hearing.

Commissioner Price mentioned the plot plans shows 77 homes which may generate a minimum of 144 additional cars. He inquired if any street parking will be available.

Mr. Derby responded that parking will be available on both sides of the street and each house will have a 10-foot side yard.

Commissioner Ramirez inquired how trees on the site will be addressed in relation to the City's design standards.

Mr. Derby asked Mr. Strelo to respond.

Mr. Strelo commented there are two species around the abandoned buildings that are proposed to be removed. He mentioned the oak tree that is approximately 25-30 feet tall, if it qualifies as a protected or heritage tree, it will require mitigation through planting of trees that would be considered protect trees themselves or payment in lieu of fee for the City to plant protected trees elsewhere in the City, or a combination of the two.

Commissioner Ramirez mentioned the design standards refer to avoiding long straight walls and it seems this project does not have curvature so he asked the applicant to speak to the design component and the placement of the park if perhaps that could be considered where the trees are located.

Mr. Derby mentioned they design to keep the homes as far from the railroad tracks as possible so that is why the retention basin is located there. He asked Mr. Strelo to respond further.

Mr. Strelo mentioned with the design guidelines, staff will analyze how homes are set back and designed; here there are 3 floor plans, none of the floorplans will have the same projection to provide variation and it is conditioned more in the resolution to change the sidewalk to be adjacent to the curb; this allows more space for vehicles to park in driveways and naturally set back homes from the sidewalk visually.

Commissioner Price inquired how many developments are going in that have HOAs.

Mr. Strelo mentioned it is common as of late, naming Alicante, Acacia, and The Vines subdivisions. He mentioned that with incoming projects, developers are providing gated communities with private streets and have on-site parks that they maintain. He mentioned Public Works is in favor of private streets because it alleviates maintenance by the City.

Commissioner Ramirez shared that he rode his bike to the site and it is dangerous. He inquired if there are plans to reduce the 50-mph speed limit.

Mr. Strelo responded that currently there are 2 lanes, 1 each way, and 50mph is the posted speed limit and he doesn't believe there would be plans to increase it. He explained that speed limits are set by speed surveys conducted by traffic engineers and they look at things like school sites, homes fronting, etc. that may impact whether the speed is lowered.

Chair Chuiko mentioned public comments have been brought up regarding safety and privacy and they need a mutually beneficial resolution to protect residents quality of life and to share quality of life with future neighbors. He mentioned there was a public comment regarding the stormwater basin and railroad. He inquired if there is a study or any factual information.

Mr. Strelo mentioned the comments provided relate to drainage questions. He requested the applicant's engineer address the question.

Colt Alvernaz with Carlson, Barbee & Gibson. Inc. mentioned the retention basin is 7 feet deep and they would have a geotechnical engineer review water migration toward the railroad tracks. He added that there are things that can be done to keep water from migrating and it is set back pretty far from the railroad track.

Chair Chuiko requested a revision in the resolution to address a study be done as this is a safety issue.

Chair Chuiko asked staff to address comments that were made regarding changing the speed limit and a providing a passing lane. He inquired about a traffic light.

Mr. Strelo explained when staff looks at new development projects, it examines if the project creates 100 peak hour trips; here it doesn't reach it so it doesn't require a full-blown traffic analysis, but staff will still do CEQA mitigation which is now based on vehicle miles traveled (VMT) and whether a project exceeds the average for the region. He mentioned they want to hear concerns when Sellers has people who drive dangerously but it is hard to put those concerns on this project; this project will add traffic, but it is considered an insignificant increase because it is not over 100. He added staff can explore the concerns, but it may not be tied to this project; things like a southern entrance to be the EVA (emergency vehicle access) or for an acceleration or deacceleration lane can help with safety concerns, but they wouldn't condition this project to reduce the speed on Sellers.

Chair Chuiko inquired if the soundwalls can be made more pleasing to the eye and to maintain privacy.

Mr. Strelo commented that for the public facing side of the columns, they can condition the project to have stone veneer around the wall like the example of the top photo Ms. Rozenski provided. To clarify, he mentioned that would be for the Sellers wall and future Laurel wall, but not the railroad facing wall. He added that staff would make sure the stone veneer on the column wraps around the entire column above the top of the wall. He commented that masonry can look different to different people. He shared that most of the soundwalls constructed end up with vine material on them to grow and cover the frontage of the wall.

Chair Chuiko inquired who would maintain that landscaping.

Mr. Strelo mentioned the project would maintain it for the frontage.

Chair Chuiko asked staff to address the sidewalk.

Mr. Strelo recommended the Planning Commission modify a condition for the sidewalk to not be installed immediately but rather the applicant pay the City an in-lieu fee, but the applicant will still be doing curb gutter, and landscape behind it, all the way up to and including the wall.

Chair Chuiko inquired if traffic measures are not addressed with this resolution tonight, if there is any other way for residents to start addressing traffic concerns on Sellers.

Mr. Strelo commented he will report back to the City Engineer to make sure he understands residents' concerns and work with traffic engineers to examine the existing situation and what it would look like with the project. He mentioned he will ask the City Engineer to attend a future Planning Commission meeting to provide an overview of what warrants traffic studies, stop sign requirements, signals, etc.

Chair Chuiko mentioned Sellers is being extremely used. He inquired if there will be modification to Sellers.

Mr. Strelo shared that the project itself will dedicate significant frontage which ultimately will provide 4 lanes to be constructed. He explained dedication only comes with entitlements and discretionary actions and he is not sure when other properties to the north and south would be entitled.

Chair Chuiko commented there will be a lot of heavy machinery and trucks on the road for construction. He inquired if the City will repave the road.

Mr. Strelo commented there will be an approved construction route and staff considers a pavement study before and after; if there is damage to the road, the developer would be asked to pay for repair.

Commissioner Price asked staff to look into the buffer zone and ensure the City is not getting into trouble.

Mr. Strelo confirmed he will look into it.

Mr. Strelo commented that these are recommendations to Council, not final approvals. He mentioned they would condition for fire department approval on the request for the EVA at the southern entrance instead of actual ingress/egress. He mentioned the single-story homes on Sellers is another consideration, as well as the grading and wall or fence for the de Fremery property; it would be worked out between the property owner and applicant.

Chair Chuiko asked if their motion will include all of those items.

Mr. Strelo confirmed that is correct.

It was moved by Commissioner Krieg and seconded by Vice Chair Verduzco to adopt the resolution as conditioned, with modifications mentioned. AYES: Chuiko, Krieg, Price, Verduzco. NOES: Ramirez. (4-1)

## 5) REGULAR CALENDAR

None.

## 6) REPORTS

### 6.1 Reports from Staff Members

Mr. Strelo announced that as of yesterday, Oakley has a new Associate Planner, Evan Gorman, who worked in Benicia and formerly worked with the City of Oakley. He mentioned everyone is happy to have him back and they will introduce him as soon as possible, hopefully during the next meeting. He thanked the Commission for providing a recommendation for approval of the Housing Element Update that went to and was adopted by the City Council. He shared it was sent to HCD on March 29, staff knows it is compliant with state law, and is now awaiting HCD's letter of certification.

### 6.2 OAKLEY PLANNING COMMISSION

#### (a) Reports from Commission Members

Commissioner Verduzco announced he will be out of town the first Tuesday of next month.

Commissioner Krieg reported that she and Commissioner Ramirez attended the Planning Commissioner Academy last week; there were over 450 Planning Commissioners from all sizes of California cities, many were many brand-new commissioners like she and Jimmy, and there were dozens of commissioners with decades of experience. She indicated it was a great opportunity to learn about the role and responsibilities of the Planning Commission. She shared the main takeaway she left with was the overarching theme that the state is getting more and more involved in local land use planning which leaves our staff with fewer and fewer options and less control over land use. She brought each Commissioner a copy of the program and mentioned if any of the sessions are of interest to them, the PowerPoint presentations are available on the CalCities' website. She mentioned she also brought Commissioners a League of California Cities Member Interest Form that they can complete and email to CalCities if they are interested in getting more information, particularly on how various pieces of legislation affect us. She shared that attached to the material she picked up for Commissioners is an overview of what the Planning & Community Development Department of the League of California Cities is doing and on the back is a list of around 100 CEQA acronyms…in very small print. She concluded that the Planning Commissioners Academy was interesting and will benefit her as an Oakley Planning Commissioner and she sincerely appreciates the opportunity. She thanked staff for arranging it.

Commissioner Ramirez reported he attended the State of California Arts Council session at the Oakley Recreation Center and was pleased to see an intergenerational crowd. He shared his takeaway from the workshop is that residents are fatigued to go to San Francisco /Oakland for activities, events, and nightlife; they want to spend their money and attend them locally. He mentioned he was invigorated by the intergenerational presence of those who care for art.

Chair Chuiko thanked staff and the public.

**(b) Requests for Future Agendas**

Commissioner Ramirez requested a presentation regarding transportation. He suggested Commissioner Krieg might be able to provide information.

Commissioner Krieg commented it may be more appropriate to have a representative from Tri-Delta provide a presentation since she is no longer authorized to speak for them (she is retired from the organization).

## 7) WORK SESSIONS

## 8) ADJOURN

There being no further business, the meeting was adjourned at 8:07 p.m.

Respectively Submitted,

Libby Vreonis
City Clerk

**RESOLUTION NO. 7-23**

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF OAKLEY RECOMMENDING THE CITY OF OAKLEY CITY COUNCIL MAKE FINDINGS AND ADOPT A MITIGATED NEGATIVE DECLARATION, ORDINANCE, AND RESOLUTION APPROVING THE PROJECT KNOWN AS SELLERS AVENUE SUBDIVISION 9614 REZONE, VESTING TENTATIVE MAP, FINAL DEVELOPMENT PLAN, AND DESIGN REVIEW (RZ 01-22, TM 01-22, FDP 01-22, DR 01-22) APN 033-150-013**

**WHEREAS,** on January 20, 2022 Paul Manyisha of MLC Holdings ("Applicant") filed an application requesting approval of: requesting approval of: 1) a Rezone (RZ 01-22) to amend an existing P-1 District; 2) a Vesting Tentative Map (TM 01-22) subdividing approximately 20.42 acres into 77 single family residential lots, private streets, stormwater detention treatment area, and neighborhood park; 3) a Final Development Plan (FDP 01-22) in conjunction with the project's P-1 District; and 4) Design Review (DR 01-22) for house plans, and conceptual landscape plans related to the overall subdivision, typical front yards, and the neighborhood park. The project site is located at 5911 Sellers Avenue and is zoned P-1 (Planned Unit Development) District. (APN: 033-150-013); and

**WHEREAS,** on February 23, 2022, the City of Oakley Planning Division received a SB 330 Preliminary Application Form for the project; and

**WHEREAS,** on August 27, 2022, Staff deemed the project application complete per Government Code section 65920 et. seq; and

**WHEREAS,** the project is designated as Residential Low (RL) in the Oakley General Plan, and zoned P-1 (Planned Unit Development) District; and

**WHEREAS,** pursuant to the requirements of the California Environmental Quality Act ("CEQA"), the City prepared a Draft Initial Study/Mitigated Negative Declaration ("IS/MND"). The Notice of Intent ("NOI") to Adopt an MND and IS was circulated for public review and comment from November 3, 2022 to December 5, 2022. It was filed with the County Clerk and Governor's Office of Planning and Research ("OPR"), emailed or mailed out to over 60 public agencies and parties requesting such notice, and posted in the same manner as a Notice of Public hearing, which is at locations throughout the City and at the project site; and

**WHEREAS,** on or before March 24, 2023, the Notice of Public Hearing for the Project was duly noticed in the Contra Costa Times, a newspaper of general distribution, was posted at the Project site, at Oakley City Hall located at 3231 Main Street, outside the gym at Delta Vista Middle School located at 4901 Frank Hengel Way, and outside the library at Freedom High School located at 1050 Neroly Road, and was mailed out to all owners of property within a 500-foot radius of the project's boundaries, to parties requesting such notice, and to outside agencies; and

**WHEREAS,** on April 4, 2023, the Planning Commission opened the public hearing at which it received a report from City Staff, oral and written testimony from the public, and deliberated on the project. At the conclusion of its deliberations, the Planning Commission took a vote and adopted this resolution recommending the City Council approve the project, as revised by the Planning Commission during its deliberations; and

**WHEREAS,** these Findings are based on the City's General Plan and the City's Zoning Ordinance, and the information submitted to the Planning Commission at its April 4, 2023 meeting, both written and oral, as reflected in the minutes of such meetings, together with the documents contained in the file for the Project (hereafter the "Record").

**NOW, THEREFORE, BE IT RESOLVED THAT,** on the basis of the above findings of fact and the entire Record, the Planning Commission makes the following additional findings in support of the approvals:

A. The Project's Initial Study and Mitigated Negative Declaration ("IS/MND") was prepared in accordance with CEQA Guidelines and is recommended to be adopted by the City Council in conjunction with the Project's Vesting Tentative Map (TM 01-22), Final Development Plan (FDP 01-22), and Design Review (DR 01-22) approvals. Development of the project is subject to all adopted mitigation measures as included in the IS/MND unless modified pursuant CEQA Guidelines and adopted by the City Council.

B. In regard to the application requesting approval of a Rezone (RZ 01-22) to amend the existing P-1 (Planned Unit Development) District, the Planning Commission finds that:

1. The Applicant has stated they plan to pursue development of the site within two years of the rezone becoming effective if market conditions support it; and

2. The density and type of development is consistent with the General Plan, and similar to newer single family residential neighborhoods that must address on-site stormwater detention and that provide for on-site park facilities. The internal road network will only serve the project site; however, it is planned to consist of private road that will be maintained through a homeowner's association and not public funds; and

3. The type of development is expected to be desirable in that it includes a variety of homes sizes, and development includes a small pocket park. It falls somewhere in the middle of the density ranges of nearby residential neighborhoods; and

4. The development of a harmonious, integrated plan justifies exceptions from the normal application of the OMC due to the significant requirement for dedication along Sellers Avenue and the future Laurel Road extension, and

the approximately 2.76 acres occupied by Parcel A for the stormwater detention/bioretention and pocket park. The P-1 District is justified to allow for project-specific development regulations in order to design a feasible project within the allowable range of the General Plan land use designation of RL.

C. In regard to the application requesting approval of Vesting Tentative Map 9614 (TM 01-22) to subdivide approximately 20.42 acres into 77 single family residential lots, private streets, stormwater detention treatment area, and neighborhood park, the Planning Commission finds that:

1. The Project's Initial Study and Mitigated Negative Declaration were prepared in accordance with CEQA Guidelines; and

2. The proposed Vesting Tentative Map ("VTM"), together with the provisions of its design and improvements, is consistent with the Zoning Ordinance, and applicable portions of the Residential Low (RL) General Plan Land Use Designation, in that the VTM's gross density (approximately 3.77 du/ga) falls within the gross density range of the RL General Plan Land Use Designation of 2.3-3.8 du/ga, and the VTM is tied to a P-1 District, which sets its own development regulations, such as required yard setbacks and minimum lot sizes; and

3. The site is physically suitable for the project in that it is accessible, not physically constrained other than the reduction in net developable acres due to right of way dedication and onsite stormwater detention and treatment, is similar to surrounding residentially developed projects, and it is also able to accommodate the proposed density of development in a manner consistent with the underlying land use designation; and

4. The site is physically suitable for the proposed density and number of dwelling units in that the proposed VTM falls within the allowable density while creating lots compliant with the project's P-1 District, and private roads to access the homes; and

5. The design of the subdivision and type of improvements are not likely to cause serious public health problems in that the proposed subdivision consists of 77 single family residential lots. Construction and grading of the project are subject to building or grading permits, and violations of any such permits are subject to appropriate enforcement; and

6. Public improvements are proposed and conditioned to occur as a result of the subdivision, which is a benefit to the public and surrounding residents and property owners of the vicinity. One such improvement will be the dedication and improvement of Sellers Avenue along the project frontage.

The project will also dedicate land for the future Laurel Road extension, which is an important element to the City's overall circulation patterns; and

7. The design of the subdivision and the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision.

D. In regards to the application requesting approval of a Final Development Plan (FDP 01-22) in conjunction with the project's P-1 District, the Planning Commission finds that the Final Development Plan together with the other components of the proposed project's submitted materials includes all of the applicable required information as required by the Oakley Municipal Code, including, but not limited to the information included on the sheet titled "Final Development Plan", the Vesting Tentative Map and its associated sheets, and the Design Review plans such as the home elevations and landscape plans.

E. In regards to the application requesting approval of Design Review (DR 01-22), the Planning Commission finds that:

1. The proposed Design Review plans are substantially consistent with the applicable General Plan designation of Residential Low (RL) and the project's Vesting Tentative Map and P-1 District zoning; and

2. The proposed Residential Siting and Lot Design is consistent with the City of Oakley Residential Design Guidelines in that, as conditioned, the Applicant has plotted the homes to provide substantial variation in the garage setbacks from front property line, changes in roof plans among the same floor plan assist in giving the overall neighborhood more visual variety in overall vertical massing along the streetscape; and

3. The Architectural Character of the proposed single-family homes is consistent with the applicable City of Oakley Residential Design Guidelines in that a variety of materials and architectural styles are used allowing for several different color schemes, and as conditioned, the homes will have unique exterior lighting designs for each architectural type, and increased use of 360 degree architecture, additional gable treatments on side and rear elevations, and the addition of a third garage door so each architectural style may have its own design, as well as options for windows in any of the garage doors.

F. The project complies with Measure J Growth Management requirements.

**BE IT FURTHER RESOLVED THAT,** on the basis of the above Findings and the Record, the Planning Commission recommends the City Council approves of the Applicant's request for a **Rezone (RZ 01-22), Tentative Map (TM 01-22), Final Development Plan**

**(FDP 01-22), and Design Review (DR 01-22),** subject to the following Conditions of Approval:

## Conditions of Approval

Applicant shall comply with the requirements of the Oakley Municipal Code. Any exceptions must be stipulated in these Conditions of Approval. Conditions of Approval are based on the application received by the Planning Division dated **February 20, 2022**, as well as additional information acquired since that time and made part of the project file.

**THE FOLLOWING CONDITIONS OF APPROVAL SHALL BE SATISFIED PRIOR TO THE CONSTRUCTION OF THE BUILDING'S ON EITHER PARCEL UNLESS OTHERWISE NOTED:**

## PLANNING DIVISION CONDITIONS OF APPROVAL

**General:**

1. The proposed project plans are recommended for City Council approval, as shown on the revised plans included as attachments to the April 4, 2023 Planning Commission Staff Report, and as modified by the following conditions of approval, subject to final review and approval by the Community Development Director.

2. These approvals shall be effectuated within a period of three (3) years from the effective date of the related Rezone approval by recording a final map and if not effectuated shall expire on that same date three years later. Prior to the expiration date, the applicant may apply for a Tentative Map Extension pursuant to the provisions of the Zoning Code and Subdivision Map Act, which would include extension of the related Design Review approval.

3. All construction drawings submitted for plan check shall be in substantial compliance with the plans presented to and approved by the City Council.

4. All conditions of approval shall be satisfied by the owner/developer. All costs associated with compliance with the conditions shall be at the owner/developer's expense.

5. Noise generating construction activities, including such things as power generators, shall be limited to the hours of 7:30 a.m. to 5:30 p.m. Monday through Friday, and shall be prohibited on City, State and Federal Holidays. The restrictions on allowed working days and times may be modified on prior written approval by the Community Development Director.

6. Should archaeological materials be uncovered during grading, trenching or other on- site excavation(s), earthwork within 30 yards of these materials shall be stopped until a professional archaeologist who is certified by the Society of

Professional Archaeology (SOPA) has had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), if deemed necessary. If the remains are determined to be that of Native American origin, procedures will be guided by California PRC 5097 through California's Native American Heritage Commission.

7. All mitigation measures addressed in the environmental document shall be complied with and addressed as outlined in the Mitigation Monitoring Program approved for this project (incorporated as Exhibit A), per the review and approval of the Community Development Director.

8. The applicant shall comply with all mitigation measures contained within the HCP Planning Survey Report for the Project, per the review and approval of the Community Development Director.

9. The applicant shall indemnify, defend, and hold harmless the City of Oakley, the City Approving Authorities, and the officers, agents, and employees of the City from any and all claims, damages and liability (including, but not limited to, damages, attorney fees, expenses of litigation, costs of court).

10. The applicant shall post a copy of the City of Oakley General Plan Land Use Diagram, in a conspicuous place, within the model homes or sales office.

**Final Development Plan/Development Standards:**

11. The project development standards shall be established and listed as part of the P-1 (Planned Unit Development) District ordinance and shall match those proposed in the proposed Final Development Plan.

12. The Final Development Plan shall be revised to include minimum setbacks for corner side yards, front setbacks for front porches, and provide proposed setbacks for each of the plotted homes.

13. The Final Development Plan shall be revised to include a statement that all accessory structures are subject to the Oakley Municipal Code regulations.

14. The applicant shall modify the Final Development Plan so at least eight of the corner lots are one-story homes.

**Design Review:**

15. The applicant shall include details of home exterior lighting for each architectural type as part of the master plan submittals. Each architectural type shall have unique exterior lighting that complements that respective style. Spec sheets shall also be included in the master plans. The home exterior lighting is subject to the review and approval of the Community Development Director.

16. The applicant shall revise the architectural plans so that homes with shutters on the front elevation, shutters shall also be included on all rear elevations, as appropriate, and on any side elevations that face the park or a roadway. All false shutters shall match the width of the window. Final approval is subject to the review and approval of the Community Development Director.

17. The applicant shall revise the architectural plan so that the second story gables include the same exterior materials or embellishments as the front-facing gables on applicable plans. Final approval is subject to the review and approval of the Community Development Director.

18. The applicant shall revise the architectural plans to include a third garage door to be used on either the Spanish or Santa Barbara style, and include a garage door window option for each style. Final approval is subject to the review and approval of the Community Development Director.

**Parks and Landscaping:**

19. This project is proposing to construct a small Homeowners Association owned and maintained pocket park on the same parcel as the stormwater detention/bioretention treatment area. If the park is available to the general public, the applicant will be credited the appropriate amount on their per lot park impact fees. If the park is only available to members of the HOA, the applicant will be required to pay the full in-lieu park impact fees on each lot.

20. The final landscape plan shall include all trees as shown on the conceptual landscape plans approved with the project. Modifications to the species, size, or location of the trees is subject to the review and approval of the Community Development Director and City Engineer. It is the responsibility of the applicant to plan utilities, joint trenches, and other improvements that could interfere with placement of trees in a manner to allow the trees to be planted without conflict to those other improvements.

21. A landscaping and irrigation plan for all front yard, right-of-way, parks, open space, and trail landscaping shall conform to the Oakley Water Efficient Landscape Ordinance and the Guidelines for Implementation of the City of Oakley Water Efficient Landscape Ordinance and shall be installed prior to final occupancy. The plan shall be prepared by a licensed landscape architect and shall be certified in compliance with the City's Water Conservation Ordinance.

22. California native drought tolerant plants shall be used as much as possible. All trees shall be a mix of fifteen-gallon and 24" box; all shrubs shall be a minimum five-gallon size, except as otherwise noted.

23. All landscaped areas not covered by shrubs or groundcover shall be covered with bark or acceptable alternative as reviewed and approved by the Community Development Director. On slopes greater than 3 to 1, the applicant shall use an alternative to bark per the review and approval of the Community Development Director. Areas covered with bark shall use a weed barrier.

24. The applicant shall maintain all private landscaping until occupancy.

25. The applicant shall redesign all applicable plans by replacing the parkway strip with a monolithic curb and sidewalk at all areas adjacent to the front or corner side yards of residential lots. Other areas may maintain a parkway strip so long as it is maintained by the homeowners association.

**Fences and Walls:**

26. The applicant shall shield the western project boundary adjacent to the railroad tracks from the adjacent railroad by a 12-foot-tall masonry sound wall and the eastern project boundary shall be shielded from Sellers Avenue by a 6-foot-tall sound walls, subject to approval by the City Engineer. Other types of barriers may be employed but shall be reviewed by an acoustical engineer prior to being constructed. Sound wall heights are assumed to be relative to the higher of the railway/roadway centerlines or building pad elevations and may achieve the wall height through use of earthen berm and wall combinations to achieve the total height.

27. The project shall also install a sound wall along the future Laurel Road extension right of way. The height of this wall shall be supported by an acoustical study conducted by an acoustical engineer and shall result in noise levels that are consistent with the Oakley General Plan (below 65 dBA Leq) for outdoor private yards (i.e. rear yards).

28. The sound walls to be constructed along Sellers Avenue, the railroad tracks, and the future Laurel Road extension shall be constructed entirely outside of the public/railroad right of way and on the adjacent private property. All costs associated with maintenance of those sound walls will be the responsibility of the property owner on which that portion of the wall is located.

29. Sound walls located along the Sellers Avenue and future Laurel Road extension right of ways shall be designed to include decorative stone veneer on the right of way side of each of the columns, and include a decorative cap on each column.

30. Within the subdivision good neighbor fences shall be constructed as shown on the proposed landscape plans and be constructed of wood that is resistant to rotting and warping, and erected with galvanized metal posts surrounded and completely hidden by wood fascia that matches the main fencing. Posts and fascia shall be capped by either a decorative upper fence rail or post cap. Good neighbor fences

facing a street shall be constructed of a durable material such as, but not limited to, masonry, vinyl, enhanced wood, composite or other durable material, or stained or painted on both sides to prevent water damage, subject to the review and approval of the Community Development Director.

31. Any CMU walls, such as landscape retaining walls, shall use colored (i.e., non-grey) split-face CMU for all publicly and privately visible portions of the wall.

32. Anti-graffiti techniques shall be used on any masonry walls or fences.

**Subdivision Design:**

33. The neighborhood entry along Sellers Avenue shall be improved with accent paving as shown on the approved plans. The type of paving is subject to the review and approval of the Community Development Director and City Engineer.

34. Driveway openings may be a maximum 18' in width or up to 25% of the lot's frontage, whichever is larger.

35. The street names shall be approved by the Community Development Department and the Contra Costa County Fire Protection District.

36. The southern entry shall be revised to function as an EVA only, subject to review and approval of the Contra Costa County Fire Protection District (CCCFPD). In the event the EVA is acceptable to the CCCFPD, the area between Sellers Avenue and the private road within the subdivision that the EVA connects to shall be designed with decorative features, including the gate/bollards, landscaping on either side of the EVA, and decorative paving the match the main entry.

37. The applicant shall work with the property owner to the south to ensure grades allow for proper drainage and the proposed subdivision can provide for an adequate separation through installation of a good neighbor fence or wall. If adequate space remains, the applicant shall install an HOA -maintained landscape strip with trees and shrubs on the southern edge of the private road that runs along that property line.

**Subdivision Disclosures:**

38. Where a lot/parcel is located within three-hundred feet (300') of a high voltage electric transmission line, the applicant shall record the following notice:

> "The subject property is located near a high voltage electric transmission line. Purchasers should be aware that there is ongoing research on possible potential adverse health effects caused by the exposure to a magnetic field generated by high voltage lines. Although much more research is needed before the question of whether magnetic fields actually

cause adverse health effects can be resolved, the basis for such a hypothesis is established. At this time no risk assessment has been made."

When a Final Subdivision Public Report issued by the California Department of Real Estate is required, the applicant shall also request that the Department of Real Estate insert the above note in the report.

39. The following statements shall be recorded at the County Recorder's Office for each parcel to notify future owners of the parcels that they own property in an agricultural area:

> "This document shall serve as notification that you have purchased land in an agricultural area where you may regularly find farm equipment using local roads; farm equipment causing dust or blowing sand; crop dusting and spraying occurring regularly; burning associated with agricultural activities; noise associated with farm equipment such as zon guns and aerial crop dusting and certain animals, including equestrian trails as well as flies may exist on surrounding properties. This statement is again, notification that this is part of the agricultural way of life in the open space areas of the City of Oakley and you should be fully aware of this at the time of purchase."

**Energy Efficiency:**

40. Water heaters shall provide an energy efficiency factor of 0.62 or better.

41. Dual zone air conditioning shall be provided on all two-story residential units.

42. Air conditioning condenser units shall be located to take advantage of natural shade. Condensers should not be placed on the west or south elevation of a home, unless shade is provided. The location of the condenser shall be added to all plot plans for review and approval of the Community Development Director.

43. Design and site units so as to take advantage of natural heating and cooling, sin and wind exposure, and solar energy opportunities.

**Waste Management Plan:**

44. The applicant shall submit a Waste Management Plan that complies with the City of Oakley Construction and Demolition Debris Recycling Ordinance.

## BUILDING DIVISION CONDITIONS OF APPROVAL

45. Plans shall meet the currently adopted Uniform Codes as well as the newest T-24 Energy Requirements per the State of California Energy Commission. To confirm the most recent adopted codes please contact the Building Division at (925) 625 – 7005.

46. An Automatic Life Safety Sprinkler System shall be required in all new construction pursuant to Ordinance 22-06. The Automatic Life Safety Sprinkler Systems in commercial and industrial buildings shall be designed and installed to the standards and requirements found in the most recent version of the NFPA (National Fire Protection Association). Automatic Life Safety Sprinkler Systems in hotels and apartments shall be installed to the stands and requirements found in the most recent version of the NFPA, Standard 13R.

47. Prior to requesting a Certificate of Occupancy or final approval from the Building Division, all Conditions of Approval required for occupancy must be completed. When the Community Development Department/Planning Division and Public Works and Engineering Department place Conditions of Approval on the project, those respective departments/divisions will sign off on the project prior to the request for a Building division final inspection. Similarly, if the Health Department and/or Fire Department reviewed and approved the original plans, those departments must sign off on the project prior to the request for a final inspection by the Building Division.

## PUBLIC WORKS AND ENGINEERING CONDITIONS OF APPROVAL

*THE FOLLOWING SHALL BE SATISFIED PRIOR TO THE ISSUANCE OF AN ENCROACHMENT AND/OR GRADING PERMIT:*

48. GENERAL. All public improvements shall be made according to the latest adopted City Standard Drawings and Specifications. All work shall conform to the applicable City ordinances. The adjacent public right-of-way shall be kept clear of all job-related dirt and debris at the end of the day. Dirt and debris shall not be washed into storm drainage facilities. The storing of goods and materials on the sidewalk and/or the street will not be allowed unless a special permit is issued. The developer's representative in charge shall be at the job site during all working hours. Failure to maintain the public right-of-way according to this condition may result in the City performing the required maintenance at the developer's expense.

49. ENCROACHMENT PERMIT. All work in the public right-of-way, including any blockage or partial closure of sidewalks will require an Encroachment Permit. Special provisions such as limitations on works hours, protective enclosures, or other means to facilitate public access in a safe manner may be required.

50. GRADING PERMIT. All earthwork must comply with the City's Grading Ordinance. A Grading Permit must be issued by the public works department prior to site disturbance.

51. PUBLIC WORKS INSPECTIONS. The developer or their representative shall notify the Engineering Inspector at least forty-eight (48) hours before starting any work pertaining to on-site drainage facilities, grading or paving, and all improvements in approved plans. Failure to do so will result in rejection of work that was completed without inspection.

52. PRECONSTRUCTION MEETING. Prior to issuance of any permit or the commencement of any site work, the general contractor shall:

a) Along with the project applicant, attend a pre-construction meeting with the City Engineer to discuss the project conditions of approval, working hours, site maintenance and other construction matters;
b) Acknowledge in writing that they have read and understand the project conditions of approval and will make certain that all project sub-contractors have read and understand them prior to commencing work and that a copy of the project conditions of approval will be posted on site at all times during construction.

53. CONSTRUCTION STREET PARKING. No vehicle having a manufacturer's rated gross vehicle weight exceeding ten thousand (10,000) pounds shall be allowed to park on the portion of a street which abuts property in a residential zone without prior approval from the City Engineer.

54. EROSION CONTROL. Interim and final erosion control plans shall be prepared and submitted to the Public Works Department. A Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) shall be submitted to the State SMARTS system for projects disturbing more than one acre and obtain a WDID number. A maximum of two weeks is allowed between clearing of an area and stabilizing/building on an area if grading is allowed during the rainy season. Interim erosion control measures, to be carried out during construction and before installation of the final landscaping shall be included. Interim erosion control method shall include, but are not limited to: silt fences, fiber rolls (with locations and details), erosion control blankets, City standard seeding specification, filter berms, check dams, retention basins, etc. Provide erosion control measures as needed to protect downstream water quality during winter months. The grading, drainage, erosion control plans and SWPPP shall comply with applicable measures contained in the City of Oakley's NPDES Permit.

55. DUST CONTROL. Blowing dust shall be reduced by timing construction activities so that paving and building construction begin as soon as possible after completion of grading, and by landscaping disturbed soils as soon as possible. Further, water trucks shall be present and in use at the construction site. All portions of the site subject to blowing dust shall be watered as often as deemed necessary by the City, or a minimum of three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites to ensure proper control of blowing dust for the duration of the project. Watering on public streets shall not occur. Streets will be cleaned by street sweepers or by hand as often as deemed necessary by the City Engineer, or at least once a day. Watering associated with on-site construction activity shall take place between the hours of 8 a.m. and 5 p.m. and shall include at least one late-afternoon watering to minimize the effects of blowing dust. All public streets soiled or littered due to this construction activity shall be cleaned and swept daily during the workweek to the satisfaction of the City. Demolition or earthwork activities shall be halted when wind speeds (instantaneous gusts) exceed 25 MPH. All trucks hauling soil, sand, or other loose debris shall be covered.

56. SILT AND MUD IN PUBLIC RIGHT-OF-WAY. It is the responsibility of contractor and homeowner to make sure that all dirt tracked into the public right-of-way is cleaned up daily. Mud, silt, concrete, and other construction debris SHALL NOT be washed into the City's storm drains. Construction entrances must be in place per the Erosion Control Plan.

57. TRAFFIC CONTROL PLAN. The project sponsor will be required to work with the Public Works Department to develop a traffic control plan per the current California MUTCD. This plan will include, but not be limited to, the following measures:

    a) Construction activities shall be strategically timed and coordinated to minimize traffic disruption for schools, residents, businesses, and special events. The schools located on the haul route shall be contacted to help with the coordination of the trucking operation to minimize traffic disruption.
    b) Flag persons shall be placed at locations necessary to control one-way traffic flow, if required. All flag persons shall have the capability of communicating with each other to coordinate the operation.
    c) Prior to construction, advance notification of all affected residents and emergency services shall be made regarding one-way operation, specifying dates and hours of operation and lane closures on main arterial and collector streets, and will be permitted only between the hours of 8:30AM to 2:30PM on M, T, TH & F. 8:30AM to 12:00PM on W.
    d) The traffic control plan shall be reviewed for compliance to the project's Haul Route, approved by the City of Oakley.
    e) A full road closure will require a detour plan and a road closure permit issued by the Public Works Department.

58. CONSTRUCTION MANAGEMENT PLAN. The Applicant shall submit a construction management plan that shall incorporate at a minimum the Earth Movement Plan, Traffic Control Plan, Project Schedule, site security fencing, employee parking, construction staging area, construction trailer, and proposed outhouse locations. The public street shall not be used for any construction related activities, including parking for workers and storage of vehicles.

59. RESTORATION OF PUBLIC IMPROVEMENTS. The developer shall repair or replace all existing improvements not designated for removal that are damaged or removed because of developer's operations. Improvements such as, but not limited to: curbs, gutters, sidewalks, driveways, signs, pavements, raised pavement markers, thermoplastic pavement markings, etc. shall be repaired and replaced to a condition equal to or better than the original condition. Existing improvement to be repaired or replaced shall be at the direction of the Public Works & Engineering Inspector and shall comply with all Title 24 Disabled Access provisions. Developer shall request a walk-through with the Engineering Construction Inspector before the start of construction to verify existing conditions.

60. SIDEWALK REPAIR. The developer shall repair and replace to existing City standards any sidewalk damaged now or during construction of this project. Sidewalk repair shall match existing color, texture, and design, and shall be constructed per City Standard Details. The limits of sidewalk repair will be determined by the Public Works Inspector during the construction phase of the project.

61. CURB AND GUTTER. The developer shall repair and replace to existing City standards any curb and gutter damaged now or during construction of this project. New curb and gutter shall be constructed per City Standard Details. The limits of curb and gutter repair will be determined by the Public Works Inspector during the construction phase of the project.

62. CONSTRUCTION NOISE. Between the hours of 7:30 a.m. to 5:30 p.m., weekdays and 9:00 a.m. to 5:30 p.m. weekends and holidays, construction, alteration, or repair activities shall be allowed. No individual piece of equipment shall produce a noise level exceeding eighty-five (85) dBA at twenty-five (25) feet. If the device is located within a structure on the property, the measurement shall be made at distances as close to twenty-five (25) feet from the device as possible. The noise level at any point outside of the property plane shall not exceed eighty-five (85) dBA. Pickup and delivery of materials and equipment is restricted to the hours listed above unless prior written approval is obtained by the Public Works Department.

63. GOOD HOUSEKEEPING. Good housekeeping practices shall be observed at all times during the course of construction. Superintendence of construction shall be diligently performed by a person or persons authorized to do so at all times during working hours. The storing of goods and/or materials on the sidewalk and/or the street will not be allowed unless a special permit is issued by the Engineering Division. The adjacent public right-of-way shall be kept clear of all job-related dirt and debris at the end of the day. Dirt and debris shall not be washed into storm drainage facilities. The storing of goods and materials on the sidewalk and/or the street will not be allowed unless a special permit is issued. The developer's representative in charge shall be at the job site during all working hours. Failure to maintain the public right-of-way according to this condition may result in the City performing the required maintenance at the developer's expense.

*THE FOLLOWING SHALL BE SATISFIED PRIOR TO THE APPROVAL OF THE GRADING PLAN:*

64. EXISTING WELLS. Provide documentation that any gas wells located onsite have been abandon per regulations.

65. GEOLOGY AND SOIL MITIGATION MEASURES. A geotechnical investigation shall be conducted for the project to determine the surface and sub-surface conditions at the site and to determine the potential for surface fault rupture on the site. The geotechnical study shall provide recommendations for site grading as well as the design of foundations, retaining walls, concrete slab-on-grade construction, excavation, drainage, on-site utility trenching and pavement sections. The soils report shall include specific criteria and standards governing site grading, drainage, pavement design, retaining wall design, and erosion control. All recommendations of the investigation shall be incorporated into project plans. One copy of the geologic report shall be submitted with the grading permit and public improvement application. Prior to issuance of any permit, the applicant's soils engineer shall review the final grading and drainage plans to ensure that designs for foundations, retaining walls, site grading, and site drainage are in accordance with their recommendations. The applicant's soils engineer's approval shall then be conveyed to the City either by letter or by signing the plans.

66. GRADING.

    a) Grade any slopes with a vertical height of four (4) feet or more at a slope no steeper than 3H to 1V. Retaining walls that may be installed to reduce the slope must be masonry and comply with the City's building code.
    b) Retaining wall or other suitable option acceptable by the City Engineer is required where the grade differential between property or adjacent lots are greater than 6". Retaining walls are required to be identified on the grading plans and shall have a note

stating a separate building permit is required for retaining wall greater than four (4) feet in height, measured from the bottom of footing to top of wall.

c) At least one week prior to commencement of grading, the applicant shall post at the site and mail to the owners of property within 300 feet to the exterior boundary of the project site notice that construction work will commence. The notice shall include a list of contact persons with the name, title, phone number and area of responsibility. The person responsible for maintaining the list shall be included. The list shall always be kept current and shall consist of persons with authority to indicate and implement corrective action in their area of responsibility. The names of the individual responsible for noise and litter control shall be expressly identified in the notice. The notice shall be reissued with each phase of major grading activity. A copy of the notice shall be concurrently transmitted to the City Engineer. The notice shall be accompanied by a list of the names and addresses of the property owners noticed, and a map identifying the area noticed.

d) Submit a Haul Route Plan to the City Engineer for review and approval prior to importing or exporting any material from the site. The plan shall include the location of the borrow or fill area, the proposed haul routes, the estimated number and frequency of trips, and the proposed schedule of hauling. Based on this plan, the City Engineering shall determine whether pavement condition surveys must be conducted along the proposed haul routes to determine what impacts the trucking activities may have. The project proponents shall be responsible to repair to their pre-construction condition any roads along the utilized routes.

e) Prior to commencement of any site work that will be result in a land disturbance of one acre or more, the applicant shall provide evidence to the City Engineer that the requirements for obtaining a State General Construction Permit have been met. Such evidence may be a copy of the Notice of Intent Letter sent by the State Water Resources Control Board. The WDID Number shall be shown on the grading plan prior to approval by the City Engineer.

f) The burying of any construction debris is prohibited on construction sites.

67. NPDES – NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM. Comply with all rules, regulations and procedures of the NPDES for municipal, construction and industrial activities as promulgated by the California State Water Resources Control Board, the Regional Water Quality Control Board (Central Valley – Region IV), including the Stormwater C.3 requirements as detailed in the Guidebook available at www.cccleanwater.org

    Compliance shall include developing long-term best management practices (BMP's) for the reduction or elimination of storm water pollutants. The project design shall incorporate wherever feasible, the following long-term BMPs in accordance with the Contra Costa Clean Water Program for the site's storm water drainage.

    - Offer pavers for household driveways and/or walkways as an option to buyers.
    - Minimize the amount of directly connected impervious surface area.
    - Delineate all storm drains with "No Dumping, Drains to the Delta" permanent metal markers per City Standards.
    - Construct concrete driveway weakened plane joints at angles to assist in directing run-off to landscaped/pervious areas prior to entering the street curb and gutter.
    - Distribute public information items regarding the Clean Water Program to buyers.
    - Other alternatives as approved by the City Engineer.

- Prepare an Operations and Maintenance Manual for the project's storm water control measures.

*THE FOLLOWING SHALL BE SATISFIED PRIOR TO THE APPROVAL OF THE IMPROVEMENT PLAN:*

68. PUBLIC IMPROVEMENTS. Construct the project streets within public right of way to City public road standards and as shown on the Tentative Map with the following exceptions:

    a) The minimum street grade may be lowered from the standard 1% to 0.75% provided that the project proponent demonstrates that the City's drainage standards can be achieved.
    b) Submit a turning radius exhibit to the City Engineer for review and approval to illustrate that the ninety-degree turns of project streets can accommodate the largest expected vehicle to use the streets without the inclusion of City standard elbows. If the exhibit illustrates that elbows are necessary to accommodate the expected traffic, then they shall be included in the improvement plans.

69. ROADWAY IMPROVEMENTS. The following improvements shall be installed by the developer as shown on the Tentative Map. Plans for these roadway improvements shall be prepared by a California registered civil engineer, reviewed, and approved by the City, to the satisfaction of the City Engineer.

    a) Design and construct the roadway improvements for Sellers Avenue along the project frontage as shown on the Vesting Tentative Map with the exception of the sidewalk, which shall be satisfied through payment of an in-lieu fee to the City of Oakley, subject to review and approval of the City Engineer. Pavement transitions shall be designed to accommodate the posted speed of 50 miles per hour. Any conforms to existing improvements must take place outside of the frontage limits of the project to the satisfaction of the City Engineer.
    b) The frontage improvements along Laurel Road are to be installed through a fair share agreement with the City of Oakley. The Laurel Road construction will be constructed by the city as a Capital Improvement Project. The developer is responsible for a 12-foot travel lane, 8-foot bike lane, storm drain, streetlights, curb, gutter, sidewalk, and landscaping along the project frontage. The agreement must be approved by the City Council prior to the recordation of the final map.

70. DRAINAGE IMPROVEMENTS.

    a) Collect and convey all stormwater entering and /or originating on this property, without diversion and within an adequate storm drainage facility, to an adequate natural watercourse having definable bed and banks, or to an existing adequate public storm drainage facility that conveys the storm waters to an adequate natural watercourse.
    b) Submit a final hydrology and hydraulic report including 10-year and 100-year frequency event calculations for the proposed drainage system and stormwater pond to the city Engineer for review and approval. The report shall include study of the downstream storm drain facilities to confirm its adequacy and mitigate on-site so that the peak flows of post-project conditions do not exceed the pre-project peak flows.
    c) Design and construct all storm drainage facilities in compliance with the Municipal Code and City design standards.

d) Prevent storm drainage from draining across the sidewalk(s) and driveway(s) in a concentrated manner.
e) Dedicate a public drainage easement over the drainage system that conveys storm water run-off from public streets.
f) On-site parking area and driveways shall not surface drain across public sidewalk or driveway aprons.

71. SIGHT DISTANCE EXHIBIT. For the project driveways' ingress and egress, provide an exhibit that will analyze the sight distance required for the appropriate speed limit identified with this project as required by the City Engineer.

72. DESIGN CHANGES. The Applicant's registered Engineer shall notify the City Engineer, in writing, at least 72 hours in advance of all differences between the proposed work and the design indicated on the plans. Any proposed changes shall be subject to the approval of the City before altered work is started. A plan revision must be submitted for approval by the City Engineer.

73. JOINT TRENCH PLANS. The applicant shall submit Joint Trench Composite Plans to the City for review prior to approval of improvement plans or recordation of the final map. The developer shall provide joint trench composite plans for the underground electrical, gas, telephone, cable television and communication conduits and cables including the size, location and details of all trenches, locations of building utility service stubs and meters and placements or arrangements of junction structures as a part of the improvement Plan submittals for the project. The composite drawings and/or utility improvement plans shall be signed by a licensed civil engineer. The joint trench plans shall include street and/or site lighting and associated photometrics. A letter shall be provided by PG&E stating that public streetlight billing will be per Rule LS2A, and that private lights shall be metered with billing to the owner. Pole numbers, assigned by PG&E, shall be clearly delineated on the plans.

74. UTILITIES & UNDERGROUNDING.

a) Underground all new and existing utility distribution facilities per City of Oakley code section Title 6 Chapter 8 Underground Utility Districts.
b) All utility boxes shall be installed underground, and all wires and cables must be installed in conduits. Compliance with this condition shall be at the discretion of the City Engineer.
c) Above ground utility boxes shall be camouflaged per the review and approval of the City Engineer.
d) A written approval from Diablo Water District and Iron House Sanitary District must be provided that all underground utility improvements have passed all testing requirements prior to commencement of paving a street.

75. STREETLIGHTS. Install streetlights along all public streets as required by the City Engineer. The City Engineer shall determine the final number and location of the lights, and the lights shall be on an LS2-A rate service. Streetlights shall be spun aluminum "cobra head" style or decorative residential street lights as required by the City of Oakley Standard Plans.

76. LANDSCAPING IN PUBLIC RIGHT OF WAY.

a) Prepare landscape plans for landscape improvements within the public right of way. Landscape plans shall be prepared by a licensed landscape architect.
b) Install public right-of-way landscaping along the project's frontages as required by the City Engineer and Community Development Director.
c) Maintain all landscaping within the public right-of-way until such time that the adjacent roadway improvements have been accepted for maintenance.
d) Prior to the issuance of certificate of occupancy, an inspection will be performed to verify the health and location of the street trees. Trees in poor health or those without adequate clearance from utilities will require replacement or relocation.

77. FENCING. Any proposed fencing and walls shall be located on private property and maintained by the property owner or owner.

78. SOUNDWALL. Soundwalls along Sellers Avenue and Laurel Road shall be installed within private property and not within public right of way. The soundwall must match the proposed soundwalls in this area or approved equal to the satisfaction of the City Engineer.

79. MAINTENANCE EXHIBIT. Submit a maintenance exhibit showing the responsible maintenance entity of proposed subdivision improvements. Exhibit must clearly show which areas are to be maintained by the City of Oakley.

a) Parcel A and B are to be retained and maintained by the Owner/Developer/Homeowners Association.
b) Bioretention Areas to be maintained by the Homeowners Association.

*THE FOLLOWING PUBLIC WORKS AND ENGINEERING CONDITIONS OF APPROVAL SHALL BE SATISFIED PRIOR TO THE APPROVAL OF THE FINAL MAP:*

80. BONDS. The applicant shall supply suitable securities for all improvements that are a part of the development in a form acceptable to the City in the amount of 100% (performance), 50% (labor and material) prior to issuance of any permit.

81. FINAL MAP. Submit a Final Map prepared by a Licensed Land Surveyor. The final map shall be recorded, and the Subdivision Agreement must be executed before any building permits are issued. Insurance shall be provided per the terms of the Subdivision Agreement.

82. DEDICATIONS. The following shall be dedicated on the final map. The dedication shall be recorded before any permits are issued and under specific timelines listed below:

a) Dedicate the required right-of-way along the project frontage on Sellers Avenue and Laurel Road as shown in the typical sections of the Tentative Map.
b) Public Utility Easement (PUE): 5' PUE beyond public right of way as required.
c) Ingress-egress, storm drainage easements, emergency access easements as required.

Any necessary rights of way, rights of entry, permits and/or easements for the construction of off-site, temporary or permanent, public and private road, utility and drainage improvements shall be furnished to the City. Prior to the issuance of the first building

permit, the applicant must provide the necessary documentation that any existing easements no longer necessary have been quitclaimed.

83. PRIVATE EASEMENTS. Agreements detailing rights, limitations, and responsibilities of involved parties shall accompany each private easement. The easements and associated agreements shall be recorded simultaneously with the final map.

84. UTILITY SETBACKS. Building foundations shall be set back from utility lines a sufficient distance to allow excavation of the utility without undermining the house foundation. The City Engineer shall determine the appropriate setback based on the depth of the utility, input from the project soils engineer, and the type of foundation.

85. DRAINAGE FEES. This project is within the Emerson Lake drainage watershed. Payment to comply with the "Reimbursement Agreement for the Storm Drainage Improvements related to Conditions of Approval for the Emerson Ranch Project" must be paid prior to the recordation of the Final Map. (Agreement recorded document reference DOC-2021-0014471 January 15, 2021).

86. ANNEXATIONS

    a) The applicant shall establish a funding mechanism to cover the ongoing financial impact their project has on fire protection services provided in the City. All costs associated with meeting this condition of approval shall be paid for by the applicant. Compliance with this requirement shall be to the satisfaction of the City Engineer and shall be completed prior to final map approval.
    b) The applicant shall establish a funding mechanism to cover the ongoing financial impact their project has on police services provided in the City. All costs associated with meeting this condition of approval shall be paid for by the applicant. Compliance with this requirement shall be to the satisfaction of the City Engineer and shall be completed prior to final map approval.
    c) The applicant shall establish a funding mechanism to cover the ongoing financial impact their project has on maintenance and operation services associated with public landscaping, parks, streetlighting, and stormwater facilities. All costs associated with meeting this condition of approval shall be paid for by the applicant. Compliance with this requirement shall be to the satisfaction of the City Engineer and shall be completed prior to final map approval.

*THE FOLLOWING SHALL BE SATISFIED PRIOR TO THE ISSUANCE OF THE <u>BUILDING PERMIT</u>:*

87. PAD CERTIFICATION. A letter from a licensed land surveyor stating that the building pad was constructed in accordance with the approved plans shall be provided prior to the issuance of the building permit.

88. SOILS ENGINEER CONSTRUCTION OBSERVATION. During construction, all excavations and grading shall be inspected by the applicant's soils engineer prior to placement of concrete and/or backfill so they can verify that the actual conditions are as anticipated in the design-level geotechnical report and recommend appropriate changes in the recommendations contained in the report, if necessary. The results of the construction observation and testing should be documented in an "as-built" letter/report

prepared by the applicants' soils engineer and submitted to the City before any building permit is granted.

89. AGREEMENT FOR STORMWATER BEST MANAGEMENT PRACTICES INSPECTION AND MAINTENANCE OBLIGATIONS. The property owner shall enter into an agreement with the City for maintenance of the stormwater filtration devices required to be installed on this project. The agreement will specify that certain routine maintenance shall be performed by the property owner and will specify device maintenance reporting requirements. The agreement will also specify routine inspection requirements, permits and payment of fees. The agreement shall be recorded prior to release of any occupancy permits.

90. AS-BUILT PLANS. After completion of the construction of all work, the original plans shall have all changes (change orders and field changes) clearly marked. The "as-built" plans shall again be signed and "wet-stamped" by the civil engineer who prepared the plans, attesting to the changes. The original "as-built" plans shall be review and approved the Engineering Inspector. A Mylar and AutoCAD disk of the approved "as-built" plans shall be provided to the City before acceptance of improvements.

91. IMPACT FEES. Comply with the requirements of the development impact fees listed below, in addition to those noticed by the City Council in Resolution 85-00 and 08-03. The applicant shall pay the fees in the amounts in effect at the time each building permit is issued.

    a) Traffic Impact Fee (authorized by Ordinance No. 14-00, adopted by Resolution 49-03);
    b) Regional Transportation Development Impact Mitigation Fee or any future alternative regional fee adopted by the City (authorized by Ordinance No. 14-00, adopted by Resolution No. 73-05);
    c) Park Land Dedication In-Lieu Fee (adopted by Ordinance No. 03-03);
    d) Park Impact Fee (authorized by Ordinance No. 05-00, adopted by Resolution No. 19-03);
    e) Public Facilities Fee (authorized by Ordinance No. 05-00, adopted by Resolution No. 18-03);
    f) Fire Facilities Impact Fee (adopted by Resolution No. 24-21);
    g) General Plan Fee (adopted by Resolution No. 53-03);

    The applicant should contact the City Engineer prior to constructing any public improvements to determine if any of the required improvements are eligible for credits or reimbursements against the applicable traffic benefit fees or from future developments.

## ADVISORY NOTES

**The following Advisory Notes are provided to the applicant as a courtesy but are not a part of the conditions of approval. Advisory Notes are provided for the purpose of informing the applicant of additional ordinance requirements that must be met in order to proceed with development.**

A. The applicant/owner should be aware of the expiration dates and renewing requirements prior to requesting building or grading permits.
B. The project will require a grading permit pursuant to the Ordinance Code.
C. Applicant shall comply with the requirements of Iron House Sanitary District.

D. The applicant shall comply with the requirements of the Diablo Water District.
E. Comply with the requirements of the Contra Costa Fire Protection District.
F. Comply with the requirements of the Building Inspection Division. Building permits are required prior to the construction of most structures.
G. This project may be subject to the requirements of the Department of Fish and Game. It is the applicant's responsibility to notify the Department of Fish and Game, P.O. Box 47, Yountville, California 94599, of any proposed construction within this development that may affect any fish and wildlife resources, per the Fish and Game Code.
H. The applicant shall be responsible for paying the County Recorder's Fee for the Notice of Determination as well as the State Department of Fish and Game's Filing Fee.
I. East Contra Costa County Habitat Conservation Plan Fee (adopted by Resolution No. 112-07 & 124-07).

**PASSED AND ADOPTED** by the Planning Commission of the City of Oakley this 4th day of April 2023 by the following vote:

AYES: Chuiko, Krieg, Price, Verduzco
NOES: Ramirez
ABSTENTIONS:
ABSENT:

APPROVED:

Oleksii Chuiko, Chair

ATTEST:

Libby Vreonis, City Clerk

04/06/2023
Date

**ORDINANCE NO. -23**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF OAKLEY APPROVING A REZONE TO AMEND AN EXISTING P-1 (PLANNED UNIT DEVELOPMENT) DISTRICT FOR THE PROJECT KNOWN AS SELLERS AVENUE SUBDIVISION 9614 (RZ 01-22) APN 033-150-013**

**FINDINGS**

**WHEREAS,** on January 20, 2022, Paul Manyisha of MLC Holdings ("Applicant") filed an application, which has since been amended, requesting approval of the following four entitlements ("Project"):

- Rezone (RZ 01-22) to amend an existing P-1 District;
- Vesting Tentative Map (TM 01-22) subdividing approximately 20.42 acres into 77 single residential lots, stormwater detention treatment area, and neighborhood park;
- Final Development Plan (FDP 01-22) in conjunction with the project's P-1 District; and
- Design Review (DR 01-22) for floor plans and architecture, and conceptual landscape plans; and

**WHEREAS,** the proposed homes consist of two single-story and two two-story house plans each with three elevations. Floor plans range from 2,054 to 2,833 square feet of livable area; and

**WHEREAS,** the project site is located at 5911 Sellers Avenue and is zoned P-1 (Planned Unit Development) District. (APN: 033-150-013); and

**WHEREAS,** the proposal complies with the requirements of the rezoning application requirements of Section 2.4.012 (a) of the Oakley Municipal Code; and

**WHEREAS,** the Applicant has initiated a project to amend an existing P-1 (Planned Unit Development) District that was originally approved in conjunction with Tentative Map 9016, which expired on May 10, 2016; and

**WHEREAS,** pursuant to the requirements of the California Environmental Quality Act ("CEQA"), the City prepared a Draft Initial Study/Mitigated Negative Declaration ("IS/MND"). The Notice of Intent ("NOI") to Adopt an MND and IS was circulated for public review and comment from November 3, 2022 to December 5, 2022. It was filed with the County Clerk and Governor's Office of Planning and Research ("OPR"), emailed or mailed out to over 60 public agencies and parties requesting such notice, and posted in the same manner as a Notice of Public hearing, which is at locations throughout the City and at the project site; and

**WHEREAS,** on or before June 30, 2023, the Notice of Public Hearing for the Project was duly noticed in the Contra Costa Times, a newspaper of general distribution, was posted at the Project site, at Oakley City Hall located at 3231 Main Street, outside the gym at Delta Vista Middle School located at 4901 Frank Hengel Way, and outside the library at Freedom High School located at 1050 Neroly Road, and was mailed out to all owners of property within a 500-foot radius of the project's boundaries, to parties requesting such notice, and to outside agencies; and

**WHEREAS,** on July 11, 2023, the City Council adopted the Project's CEQA IS/MND in conjunction with approval of the proposed Tentative Map (TM 01-22, Final Development Plan (FDP 01-22), and Design Review (DR 01-22).

The City Council of the City of Oakley does ordain as follows:

SECTION 1. Findings

A. Pursuant to Section 2.4.012 of the Oakley Municipal Code, the City Council of the City of Oakley hereby finds and determines as follows:

1. The change proposed will comply with the General Plan in that the proposed rezone to amend the existing P-1 District will not result in a use or density that is not in line with the underlying General Plan Land Use Designation of Residential Low (RL); and

2. The uses authorized or proposed in the land use district are compatible within the district and to uses authorized in adjacent districts in that the proposed Rezone does not necessarily change the existing zoning, only amends it due to the nature of the P-1 District being tied to a specific project, in this case an expire Tentative Map and Final Development Plan; and

3. Community need, but not necessarily future financial success, has been demonstrated for the use proposed in that the Project will result in the construction of additional housing units, which is necessary to meet demand in the community since the City of Oakley falls under the jurisdiction of the Association of Bay Area Governments (ABAG), and ABAG uses a predominately demographic formula to allocate the regional housing needs among the incorporated cities and unincorporated county. This process results in a Regional Housing Needs Assessment (RHNA) and the number reflected in that assessment becomes part the City of Oakley's estimated housing needs. The development of this project will help the City meet its regional fair share housing goal.

B. Pursuant to Section 9.1.1002 Planned Unit Development (P-1) of the Oakley Municipal Code, the City Council of the City of Oakley hereby finds and determines as follows:

1. The Applicant has stated they plan to pursue development of the site within wo years of the rezone becoming effective if market conditions support it; and

2. The density and type of development is consistent with the General Plan, and the project integrates connectivity to the properties to the south; and

3. The type of development is expected to be desirable in that it includes a variety of home sizes and development includes an open space and pocket park. It falls somewhere in the middle of the density ranges of nearby residential neighborhoods; and

4. The development of a harmonious, integrated plan justifies exceptions from the normal application of the OMC due to the significant requirement for dedication of approximately 2.35 acres along Sellers Avenue and the future Laurel Road extension right of way, and use of approximately 2.76 acres for the stormwater detention/bioretention and pocket park. The P-1 District is justified to allow for project-specific development regulations in order to design a feasible project within the allowable range of the General Plan land use designation of RL.

SECTION 2. Property Defined and Rezoned

A. 20.42 acres of real property located at 5911 Sellers Avenue, Oakley, CA 94561 (APN 033-150-013).

SECTION 3. California Environmental Quality Act (CEQA) Finding

Pursuant to California State Law, an Initial Study was conducted by the Planning Division to evaluate the potential effects of this project upon the environment. The Initial Study analysis found there were no potentially significant impacts, and therefore a Mitigated Negative Declaration was prepared. Based upon the findings contained in the Initial Study it has been determined that this project will not have a significant impact upon the environment.

SECTION 4. Severability

If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, the remainder of the ordinance, including the application of such part or provision to other persons or circumstances shall not be affected thereby and shall continue in full force and effect. To this end, the provisions of this ordinance are severable. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause, or phrase thereof, irrespective of the fact that any one or more sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases may be held unconstitutional, invalid or unenforceable.

SECTION 5. Effective Date and Posting

This ordinance shall take effect and be in force thirty (30) days from and after the date of its passage. The City Clerk shall cause the ordinance to be published within fifteen (15) days after its passage in a newspaper of general circulation, or by publishing a summary of the proposed ordinance, posting a certified copy of the proposed office in the City Clerk's Office at least five (5) days prior to the City Council meeting at which the ordinance is to be adopted, and within fifteen (15) days after its adoption, publishing a summary of the ordinance with the names of the Council Members voting for and against the ordinance.

The foregoing ordinance was adopted with the reading waived at a regular meeting of the Oakley City Council on _____, 2023 by the following vote:

AYES:

NOES:

ABSTENTIONS:

ABSENT:

APPROVED:

_____
Aaron Meadows, Mayor Date

ATTEST:

_____
Libby Vreonis, City Clerk Date

**RESOLUTION NO. -23**

**A RESOLUTION OF THE CITY OF OAKLEY CITY COUNCIL MAKING FINDINGS AND ADOPTING A MITIGATED NEGATIVE DELCARATION AND THE PROJECT KNOWN AS SELLERS AVENUE SUBDIVISION 9614 INCLUDING THE ENTITLEMENTS FOR A VESTING TENTATIVE MAP (TM 01-22), FINAL DEVELOPMENT PLAN (FDP 01-22), AND DESIGN REVIEW (DR 01-22) APN 033-150-013**

**WHEREAS,** on January 20, 2022, Paul Manyisha of MLC Holdings ("Applicant") filed an application, which has since been amended, to request approval of: 1) a Rezone (RZ 01-22) to amend an existing P-1 District; 2) a Vesting Tentative Map (TM 01-22) subdividing approximately 20.42 acres into 77 single residential lots, street rights of way, stormwater detention treatment area, neighborhood park, and emergency vehicle access; 3) a Final Development Plan (FDP 01-22) in conjunction with the project's P-1 District; and 4) Design Review (DR 01-22) for floor plans and architecture, and conceptual landscape plans ("Project"). The proposed homes consist of two single-story and two two-story house plans each with three elevations. Floor plans range from 2,054 to 2,833 square feet of livable area. The project site is located at 5911 Sellers Avenue and is zoned P-1 (Planned Unit Development) District. (APNs: 033-150-013); and

**WHEREAS,** on February 23, 2022, the City of Oakley Planning Division received a SB 330 Preliminary Application Form for the project; and

**WHEREAS,** on August 29, 2022, the project application was deemed complete per Government Code section 65920 et. seq; and

**WHEREAS,** the project is designated as Residential Low (RL) in the Oakley General Plan, and zoned P-1 (Planned Unit Development) District; and

**WHEREAS,** pursuant to the requirements of the California Environmental Quality Act ("CEQA"), the City prepared a Draft Initial Study/Mitigated Negative Declaration ("IS/MND"). The Notice of Intent ("NOI") to Adopt an MND and IS was circulated for public review and comment from November 3, 2022 to December 5, 2022. It was filed with the County Clerk and Governor's Office of Planning and Research ("OPR"), emailed or mailed out to over 60 public agencies and parties requesting such notice, and posted in the same manner as a Notice of Public hearing, which is at locations throughout the City and at the project site; and

**WHEREAS,** on April 4, 2023, the Planning Commission held a duly noticed public hearing on the project at which it received a report from City Staff, oral and written testimony from the public, and deliberated on the project. At the conclusion of its deliberations, the Planning Commission took a vote and adopted Planning Commission Resolution No. 7-23 recommending the City Council approve the project, as revised by the Planning Commission during its deliberations; and

**WHEREAS,** on June 9, 2023, the Applicant submitted revised plans as a result on the Planning Commission public hearing; and

**WHEREAS,** on or before June 30, 2023, the Notice of Public Hearing for the Project was duly noticed in the Contra Costa Times, a newspaper of general distribution, was posted at the Project site, at Oakley City Hall located at 3231 Main Street, outside the gym at Delta Vista Middle School located at 4901 Frank Hengel Way, and outside the library at Freedom High School located at 1050 Neroly Road, and was mailed out to all owners of property within a 500-foot radius of the project's boundaries, to parties requesting such notice, and to outside agencies; and

**WHEREAS,** on July 11, 2023, the City Council opened the public hearing at which it received a report from City Staff, oral and written testimony from the public, and deliberated on the project. At the conclusion of its deliberations, the City Council took a vote and adopted this resolution to approve the project, as revised by the City Council during its deliberations; and

**WHEREAS,** these Findings are based on the City's General Plan and the City's Zoning Ordinance, and the information submitted to the City Council at its July 11, 2023 meeting, both written and oral, as reflected in the minutes of such meetings, together with the documents contained in the file for the Project (hereafter the "Record").

**NOW, THEREFORE, BE IT RESOLVED THAT,** on the basis of the above findings of fact and the entire Record, the City Council makes the following additional findings in support of the approvals:

A. The Project's Initial Study and Mitigated Negative Declaration ("IS/MND") was prepared in accordance with CEQA Guidelines and is recommended to be adopted by the City Council in conjunction with the Project's Vesting Tentative Map (TM 01-22), Final Development Plan (FDP 01-22), and Design Review (DR 01-22) approvals. Development of the project is subject to all adopted mitigation measures as included in the IS/MND unless modified pursuant to the CEQA Guidelines and adopted by the City Council.

B. In regard to the application requesting approval of Vesting Tentative Map 9614 (TM 01-22) to subdivide approximately 20.42 acres into 77 single residential lots, street rights of way, stormwater detention treatment area, neighborhood park, and emergency vehicle access, the City Council finds that:

    1. The Project's Initial Study and Mitigated Negative Declaration were prepared in accordance with CEQA Guidelines; and

    2. The proposed Vesting Tentative Map ("VTM"), together with the provisions of its design and improvements, is consistent with the Zoning Ordinance, and applicable portions of the Residential Low (RL) General Plan Land Use Designation, in that the VTM's gross density (approximately 3.77 du/ga)

falls within the gross density range of the RL General Plan Land Use Designation of 2.3-3.8 du/ga, and the VTM is tied to a P-1 District, which sets its own development regulations, such as required yard setbacks and minimum lot sizes; and

3. The site is physically suitable for the project in that it is accessible, not physically constrained other than the reduction in net developable acres due to right of way dedication and onsite stormwater retention basin, is similar to surrounding residentially developed projects, and it is also able to accommodate the proposed density of development in a manner consistent with the underlying land use designation; and

4. The site is physically suitable for the proposed density and number of dwelling units in that the proposed VTM falls within the allowable density while creating lots compliant with the project's P-1 District, and public roads to access the homes; and

5. The design of the subdivision and type of improvements are not likely to cause serious public health problems in that the proposed subdivision consists of 77 single family residential lots. Construction and grading of the project are subject to building or grading permits, and violations of any such permits are subject to appropriate enforcement; and

6. Public improvements are proposed and conditioned to occur as a result of the subdivision, which is a benefit to the public and surrounding residents and property owners of the vicinity. One such improvement will be the dedication and improvement of Sellers Avenue along the project frontage. The project will also dedicate land for the future Laurel Road extension, which is an important element to the City's overall circulation patterns; and

7. The design of the subdivision and the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision.

C. In regards to the application requesting approval of a Final Development Plan (FDP 01-22) in conjunction with the project's P-1 District, the City Council finds that the Final Development Plan together with the other components of the proposed project's submitted materials includes all of the applicable required information as required by the Oakley Municipal Code, including, but not limited to the information included on the sheet titled "Final Development Plan", the Vesting Tentative Map and its associated sheets, and the Design Review plans such as the home elevations and landscape plans.

D. In regard to the application requesting approval of Design Review (DR 01-22), the City Council finds that:

1. The proposed Design Review plans are consistent with the applicable General Plan designation of Residential Low (RL) and the project's Vesting Tentative Map and P-1 District zoning; and

2. The proposed Residential Siting and Lot Design is consistent with the City of Oakley Residential Design Guidelines in that, the homes will be plotted to provide substantial variation in the garage setbacks from front property line, and changes in roof plans among the same floor plan assist in giving the overall neighborhood more visual variety in overall vertical massing along the streetscape; and

3. The Architectural Character of the proposed single-family homes is consistent with the applicable City of Oakley Residential Design Guidelines in that a variety of materials and architectural styles are used allowing for several different color schemes, and as conditioned, the homes will have unique exterior lighting designs for each architectural type, and increased use of 360 degree architecture, additional gable treatments on side and rear elevations, and the addition of a third garage door so each architectural style may have its own design, as well as options for windows in any of the garage doors.

E. The project complies with Measure J Growth Management requirements.

**BE IT FURTHER RESOLVED THAT,** on the basis of the above Findings and the Record, the City Council approves of the Applicant's request for approval of a **Tentative Map (TM 01-22), Final Development Plan (FDP 01-22), and Design Review (DR 01-22),** subject to the following Conditions of Approval:

## Conditions of Approval

Applicant shall comply with the requirements of the Oakley Municipal Code. Any exceptions must be stipulated in these Conditions of Approval. Conditions of Approval are based on the application received by the Planning Division dated **January 20, 2022**, as well as additional information acquired since that time and made part of the project file.

**THE FOLLOWING CONDITIONS OF APPROVAL SHALL BE SATISFIED PRIOR TO THE CONSTRUCTION OF THE BUILDING'S ON EITHER PARCEL UNLESS OTHERWISE NOTED:**

## PLANNING DIVISION CONDITIONS OF APPROVAL

**General:**

1. The **Tentative Map (TM 01-22), Final Development Plan (FDP 01-22), and (DR 01-22)** are approved, as shown on the revised plans, date stamped by the Planning

Division on June 9, 2023, and as modified by the following conditions of approval, subject to final review and approval by the Community Development Director.

2. These approvals shall be effectuated within a period of three (3) years from the effective date of the related Rezone approval by recording a final map and if not effectuated shall expire on that same date three years later. Prior to the expiration date, the applicant may apply for a Tentative Map Extension pursuant to the provisions of the Zoning Code and Subdivision Map Act, which would include extension of the related Design Review approval.

3. All construction drawings submitted for plan check shall be in substantial compliance with the plans presented to and approved by the City Council on July 11, 2023.

4. All conditions of approval shall be satisfied by the owner/developer. All costs associated with compliance with the conditions shall be at the owner/developer's expense.

5. Noise generating construction activities, including such things as power generators, shall be limited to the hours of 7:30 a.m. to 5:30 p.m. Monday through Friday, and shall be prohibited on City, State and Federal Holidays. The restrictions on allowed working days and times may be modified on prior written approval by the Community Development Director.

6. Should archaeological materials be uncovered during grading, trenching or other on- site excavation(s), earthwork within 30 yards of these materials shall be stopped until a professional archaeologist who is certified by the Society of Professional Archaeology (SOPA) has had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), if deemed necessary. If the remains are determined to be that of Native American origin, procedures will be guided by California PRC 5097 through California's Native American Heritage Commission.

7. All mitigation measures addressed in the environmental document shall be complied with and addressed as outlined in the Mitigation Monitoring Program approved for this project (incorporated as Exhibit A), per the review and approval of the Community Development Director.

8. The applicant shall comply with all mitigation measures contained within the HCP Planning Survey Report for the Project, per the review and approval of the Community Development Director.

9. The applicant shall indemnify, defend, and hold harmless the City of Oakley, the City Approving Authorities, and the officers, agents, and employees of the City from any and all claims, damages and liability (including, but not limited to, damages, attorney fees, expenses of litigation, costs of court).

10. The applicant shall post a copy of the City of Oakley General Plan Land Use Diagram, in a conspicuous place, within the model homes or sales office.

**Final Development Plan/Development Standards:**

11. Prior to Planning approval of any master plans or building permits, the applicant shall revise the Final Develop Plan so that the five situations where there are adjacent two-story elements less than 15 feet apart is amended so that all adjacent two-story elements are a minimum 15 feet apart. In the event this condition is not feasible because of unforeseen effects of attempting to implement it, the applicant shall submit the reasons for the infeasibility to the City of Oakley. The Community Development Director and City Engineer shall review the written explanation and shall have final say in whether the condition is feasible or not for any of the specific situations.

12. The Final Development Plan shall include minimum setbacks for corner side yards.

13. The Final Development Plan shall be revised to include a statement that all accessory structures are subject to the Oakley Municipal Code regulations.

14. The project's development standards are included in the project's Rezone ordinance.

**Design Review:**

15. The applicant shall include details of home exterior lighting for each architectural type as part of the master plan submittals. Each architectural type shall have unique exterior lighting that complements that respective style. Spec sheets shall also be included in the master plans. The home exterior lighting is subject to the review and approval of the Community Development Director.

16. The applicant shall revise the architectural plans submitted with the master plans so that shutters shall also be included on all rear elevations, as appropriate, and on any side elevations that face the park or a roadway. All false shutters shall match the width of the window. Final approval is subject to the review and approval of the Community Development Director.

17. The applicant shall revise the architectural plans submitted with the master plans so that the second story gables include the same exterior materials or embellishments as the front-facing gables on applicable plans. Final approval is subject to the review and approval of the Community Development Director.

18. The applicant shall revise the architectural plans submitted with the master plans to include a third garage door to be used on either the Spanish or Santa Barbara

style and include a garage door window option for each style. Final approval is subject to the review and approval of the Community Development Director.

**Parks and Landscaping:**

19. This project is proposing to construct a publicly accessible open space and neighborhood park on Parcel B of the Vesting Tentative Map. Since the park will be available to the general public, the applicant will be credited the appropriate amount on their per lot park impact fees depending on the final size of the park and usable area as depicted on the final map.

20. The area of Parcel B connecting the park to the road network and between the railroad right of way and Lot 30 shall be improved to include a trail only accessible to pedestrians and bicycles and that connects to the open space/park area. In addition, the area shall be planted with trees and shrubs and done so in a manner that discourages access and invasion of privacy to the adjacent Lot 30.

21. The final landscape plan shall include all trees as shown on the conceptual landscape plans approved with the project. Modifications to the species, size, or location of the trees is subject to the review and approval of the Community Development Director and City Engineer. It is the responsibility of the applicant to plan utilities, joint trenches, and other improvements that could interfere with placement of trees in a manner to allow the trees to be planted without conflict to those other improvements.

22. A landscaping and irrigation plan for all front yard, right-of-way, parks, open space, and trail landscaping shall conform to the Oakley Water Efficient Landscape Ordinance and the Guidelines for Implementation of the City of Oakley Water Efficient Landscape Ordinance and shall be installed prior to final occupancy. The plan shall be prepared by a licensed landscape architect and shall be certified in compliance with the City's Water Conservation Ordinance.

23. California native drought tolerant plants shall be used as much as possible. All trees shall be a mix of fifteen-gallon and 24" box; all shrubs shall be a minimum five-gallon size, except as otherwise noted.

24. All landscaped areas not covered by shrubs or groundcover shall be covered with bark or acceptable alternative as reviewed and approved by the Community Development Director. On slopes greater than 3 to 1, the applicant shall use an alternative to bark per the review and approval of the Community Development Director. Areas covered with bark shall use a weed barrier.

25. The applicant shall maintain all private landscaping until occupancy.

**Fences and Walls:**

26. The applicant shall shield the western project boundary adjacent to the railroad tracks from the adjacent railroad by a 12-foot-tall masonry sound wall and the eastern project boundary shall be shielded from Sellers Avenue by a 6-foot-tall sound walls, subject to approval by the City Engineer. Other types of barriers may be employed but shall be reviewed by an acoustical engineer prior to being constructed. Sound wall heights are assumed to be relative to the higher of the railway/roadway centerlines or building pad elevations and may achieve the wall height through use of earthen berm and wall combinations to achieve the total height.

27. The project shall also install a sound wall along the future Laurel Road extension right of way. The height of this wall shall be supported by an acoustical study conducted by an acoustical engineer and shall result in noise levels that are consistent with the Oakley General Plan (below 65 dBA Leq) for outdoor private yards (i.e. rear yards).

28. The sound walls to be constructed along Sellers Avenue, the railroad tracks, and the future Laurel Road extension shall be constructed entirely outside of the public/railroad right of way and on the adjacent private property. All costs associated with maintenance of those sound walls will be the responsibility of the property owner on which that portion of the wall is located.

29. The sound walls to be constructed along Sellers Avenue and the future Laurel Road extension shall be constructed of split-face CMU with stone veneer columns. All costs associated with maintenance of those sound walls will be the responsibility of the property owner on which that portion of the wall is located.

30. Within the subdivision good neighbor fences shall be constructed as shown on the proposed landscape plans and be constructed of wood that is resistant to rotting and warping, and erected with galvanized metal posts surrounded and completely hidden by wood fascia that matches the main fencing. Posts and fascia shall be capped by either a decorative upper fence rail or post cap. Good neighbor fences facing a street shall be constructed of a durable material such as, but not limited to, masonry, vinyl, enhanced wood, composite or other durable material, or stained or painted on both sides to prevent water damage, subject to the review and approval of the Community Development Director.

31. Any CMU walls, such as landscape retaining walls, shall use colored (i.e., non-grey) split-face CMU for all publicly and privately visible portions of the wall.

32. Anti-graffiti techniques shall be used on any masonry walls or fences.

**Subdivision Design:**

33. The neighborhood along Sellers Avenue shall be improved with accent paving as shown on the approved plans. The type of paving is subject to the review and approval of the Community Development Director and City Engineer.

34. Driveway openings may be a maximum 18' in width or up to 25% of the lot's frontage, whichever is larger.

35. The street names shall be approved by the Community Development Department and the Contra Costa County Fire Protection District.

36. The EVA onto Sellers Avenue at the southern boundary of the project site shall be subject to review and approval of the Contra Costa County Fire Protection District (CCCFPD).

**Subdivision Disclosures:**

37. Where a lot/parcel is located within 300' of a high voltage electric transmission line, the applicant shall record the following notice:

> "The subject property is located near a high voltage electric transmission line. Purchasers should be aware that there is ongoing research on possible potential adverse health effects caused by the exposure to a magnetic field generated by high voltage lines. Although much more research is needed before the question of whether magnetic fields actually cause adverse health effects can be resolved, the basis for such a hypothesis is established. At this time, no risk assessment has been made."

When a Final Subdivision Public Report issued by the California Department of Real Estate is required, the applicant shall also request that the Department of Real Estate insert the above note in the report.

38. The following statements shall be recorded at the County Recorder's Office for each parcel to notify future owners of the parcels that they own property in an agricultural area:

> "This document shall serve as notification that you have purchased land in an agricultural area where you may regularly find farm equipment using local roads; farm equipment causing dust or blowing sand; crop dusting and spraying occurring regularly; burning associated with agricultural activities; noise associated with farm equipment such as zon guns and aerial crop dusting and certain animals, including equestrian trails as well as flies may exist on surrounding properties. This statement is again, notification that this is part of the agricultural way of life in the open space areas of the City of Oakley and you should be fully aware of this at the time of purchase."

**Energy Efficiency:**

39. Water heaters shall provide an energy efficiency factor of 0.62 or better.

40. Dual zone air conditioning shall be provided on all two-story residential units.

41. Air conditioning condenser units shall be located to take advantage of natural shade. Condensers should not be placed on the west or south elevation of a home unless shade is provided. The location of the condenser shall be added to all plot plans for review and approval of the Community Development Director.

42. Design and site units so as to take advantage of natural heating and cooling, sin and wind exposure, and solar energy opportunities.

**Waste Management Plan:**

43. The applicant shall submit a Waste Management Plan that complies with the City of Oakley Construction and Demolition Debris Recycling Ordinance.

**BUILDING DIVISION CONDITIONS OF APPROVAL**

44. Plans shall meet the currently adopted Uniform Codes as well as the newest T-24 Energy Requirements per the State of California Energy Commission. To confirm the most recently adopted codes please contact the Building Division at (925) 625 – 7005.

45. An Automatic Life Safety Sprinkler System shall be required in all new construction pursuant to Ordinance 22-06. The Automatic Life Safety Sprinkler Systems in commercial and industrial buildings shall be designed and installed to the standards and requirements found in the most recent version of the NFPA (National Fire Protection Association). Automatic Life Safety Sprinkler Systems in hotels and apartments shall be installed to the stands and requirements found in the most recent version of the NFPA, Standard 13R.

46. Prior to requesting a Certificate of Occupancy or final approval from the Building Division, all Conditions of Approval required for occupancy must be completed. When the Community Development Department/Planning Division and Public Works and Engineering Department place Conditions of Approval on the project, those respective departments/divisions will sign off on the project prior to the request for a Building division final inspection. Similarly, if the Health Department and/or Fire Department reviewed and approved the original plans, those departments must sign off on the project prior to the request for a final inspection by the Building Division.

## PUBLIC WORKS AND ENGINEERING CONDITIONS OF APPROVAL

*THE FOLLOWING SHALL BE SATISFIED PRIOR TO THE ISSUANCE OF AN ENCROACHMENT AND/OR GRADING PERMIT:*

47. GENERAL. All public improvements shall be made according to the latest adopted City Standard Drawings and Specifications. All work shall conform to the applicable City ordinances. The adjacent public right-of-way shall be kept clear of all job-related dirt and debris at the end of the day. Dirt and debris shall not be washed into storm drainage facilities. The storing of goods and materials on the sidewalk and/or the street will not be allowed unless a special permit is issued. The developer's representative in charge shall be at the job site during all working hours. Failure to maintain the public right-of-way according to this condition may result in the City performing the required maintenance at the developer's expense.

48. ENCROACHMENT PERMIT. All work in the public right-of-way, including any blockage or partial closure of sidewalks will require an Encroachment Permit. Special provisions such as limitations on works hours, protective enclosures, or other means to facilitate public access in a safe manner may be required.

49. GRADING PERMIT. All earthwork must comply with the City's Grading Ordinance. A Grading Permit must be issued by the public works department prior to site disturbance.

50. PUBLIC WORKS INSPECTIONS. The developer or their representative shall notify the Engineering Inspector at least forty-eight (48) hours before starting any work pertaining to on-site drainage facilities, grading or paving, and all improvements in approved plans. Failure to do so will result in rejection of work that was completed without inspection.

51. PRECONSTRUCTION MEETING. Prior to issuance of any permit or the commencement of any site work, the general contractor shall:

    a) Along with the project applicant, attend a pre-construction meeting with the City Engineer to discuss the project conditions of approval, working hours, site maintenance and other construction matters;
    b) Acknowledge in writing that they have read and understand the project conditions of approval and will make certain that all project sub-contractors have read and understand them prior to commencing work and that a copy of the project conditions of approval will be posted on site at all times during construction.

52. CONSTRUCTION STREET PARKING. No vehicle having a manufacturer's rated gross vehicle weight exceeding ten thousand (10,000) pounds shall be allowed to park on the portion of a street which abuts property in a residential zone without prior approval from the City Engineer.

53. EROSION CONTROL. Interim and final erosion control plans shall be prepared and submitted to the Public Works Department. A Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) shall be submitted to the State SMARTS system for projects disturbing more than one acre and obtain a WDID number. A maximum of two weeks is allowed between clearing of an area and stabilizing/building on an area if grading is allowed during the rainy season. Interim erosion control measures, to be carried out during construction and before installation of the final landscaping shall be included. Interim erosion control method shall include, but are not limited to: silt fences, fiber rolls (with locations and details), erosion control blankets, City standard seeding specification, filter berms, check dams, retention basins, etc. Provide erosion control measures as needed to protect downstream water quality during winter months. The grading, drainage, erosion control plans and SWPPP shall comply with applicable measures contained in the City of Oakley's NPDES Permit.

54. DUST CONTROL. Blowing dust shall be reduced by timing construction activities so that paving and building construction begin as soon as possible after completion of grading, and by landscaping disturbed soils as soon as possible. Further, water trucks shall be present and in use at the construction site. All portions of the site subject to blowing dust shall be watered as often as deemed necessary by the City, or a minimum of three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites to ensure proper control of blowing dust for the duration of the project. Watering on public streets shall not occur. Streets will be cleaned by street sweepers or by hand as often as deemed necessary by the City Engineer, or at least once a day. Watering associated with on-site construction activity shall take place between the hours of 8 a.m. and 5 p.m. and shall include at least one late-afternoon watering to minimize the effects of blowing dust. All public streets soiled or littered due to this construction activity shall be cleaned and swept daily during the workweek to the satisfaction of the City. Demolition or earthwork activities shall be halted when wind speeds (instantaneous gusts) exceed 25 MPH. All trucks hauling soil, sand, or other loose debris shall be covered.

55. SILT AND MUD IN PUBLIC RIGHT-OF-WAY. It is the responsibility of contractor and homeowner to make sure that all dirt tracked into the public right-of-way is cleaned up daily. Mud, silt, concrete, and other construction debris SHALL NOT be washed into the City's storm drains. Construction entrances must be in place per the Erosion Control Plan.

56. TRAFFIC CONTROL PLAN. The project sponsor will be required to work with the Public Works Department to develop a traffic control plan per the current California MUTCD. This plan will include, but not be limited to, the following measures:

    a) Construction activities shall be strategically timed and coordinated to minimize traffic disruption for schools, residents, businesses, and special events. The

schools located on the haul route shall be contacted to help with the coordination of the trucking operation to minimize traffic disruption.

b) Flag persons shall be placed at locations necessary to control one-way traffic flow, if required. All flag persons shall have the capability of communicating with each other to coordinate the operation.
c) Prior to construction, advance notification of all affected residents and emergency services shall be made regarding one-way operation, specifying dates and hours of operation and lane closures on main arterial and collector streets, and will be permitted only between the hours of 8:30AM to 2:30PM on M, T, TH & F. 8:30AM to 12:00PM on W.
d) The traffic control plan shall be reviewed for compliance to the project's Haul Route, approved by the City of Oakley.
e) A full road closure will require a detour plan and a road closure permit issued by the Public Works Department.

57. CONSTRUCTION MANAGEMENT PLAN. The Applicant shall submit a construction management plan that shall incorporate at a minimum the Earth Movement Plan, Traffic Control Plan, Project Schedule, site security fencing, employee parking, construction staging area, construction trailer, and proposed outhouse locations. The public street shall not be used for any construction related activities, including parking for workers and storage of vehicles.

58. RESTORATION OF PUBLIC IMPROVEMENTS. The developer shall repair or replace all existing improvements not designated for removal that are damaged or removed because of developer's operations. Improvements such as, but not limited to: curbs, gutters, sidewalks, driveways, signs, pavements, raised pavement markers, thermoplastic pavement markings, etc. shall be repaired and replaced to a condition equal to or better than the original condition. Existing improvement to be repaired or replaced shall be at the direction of the Public Works & Engineering Inspector and shall comply with all Title 24 Disabled Access provisions. Developer shall request a walk-through with the Engineering Construction Inspector before the start of construction to verify existing conditions.

59. SIDEWALK REPAIR. The developer shall repair and replace to existing City standards any sidewalk damaged now or during construction of this project. Sidewalk repair shall match existing color, texture, and design, and shall be constructed per City Standard Details. The limits of sidewalk repair will be determined by the Public Works Inspector during the construction phase of the project.

60. CURB AND GUTTER. The developer shall repair and replace to existing City standards any curb and gutter damaged now or during construction of this project. New curb and gutter shall be constructed per City Standard Details. The limits of curb and gutter repair will be determined by the Public Works Inspector during the construction phase of the project.

61. CONSTRUCTION NOISE. Between the hours of 7:30 a.m. to 5:30 p.m., weekdays and 9:00 a.m. to 5:30 p.m. weekends and holidays, construction, alteration, or repair activities shall be allowed. No individual piece of equipment shall produce a noise level exceeding eighty-five (85) dBA at twenty-five (25) feet. If the device is located within a structure on the property, the measurement shall be made at distances as close to twenty-five (25) feet from the device as possible. The noise level at any point outside of the property plane shall not exceed eighty-five (85) dBA. Pickup and delivery of materials and equipment is restricted to the hours listed above unless prior written approval is obtained by the Public Works Department.

62. GOOD HOUSEKEEPING. Good housekeeping practices shall be observed at all times during the course of construction. Superintendence of construction shall be diligently performed by a person or persons authorized to do so at all times during working hours. The storing of goods and/or materials on the sidewalk and/or the street will not be allowed unless a special permit is issued by the Engineering Division. The adjacent public right-of-way shall be kept clear of all job-related dirt and debris at the end of the day. Dirt and debris shall not be washed into storm drainage facilities. The storing of goods and materials on the sidewalk and/or the street will not be allowed unless a special permit is issued. The developer's representative in charge shall be at the job site during all working hours. Failure to maintain the public right-of-way according to this condition may result in the City performing the required maintenance at the developer's expense.

*THE FOLLOWING SHALL BE SATISFIED PRIOR TO THE APPROVAL OF THE GRADING PLAN:*

63. EXISTING WELLS. Provide documentation that any gas wells located onsite have been abandon per regulations.

64. GEOLOGY AND SOIL MITIGATION MEASURES. A geotechnical investigation shall be conducted for the project to determine the surface and sub-surface conditions at the site and to determine the potential for surface fault rupture on the site. The geotechnical study shall provide recommendations for site grading as well as the design of foundations, retaining walls, concrete slab-on-grade construction, excavation, drainage, on-site utility trenching and pavement sections. The soils report shall include specific criteria and standards governing site grading, drainage, pavement design, retaining wall design, and erosion control. All recommendations of the investigation shall be incorporated into project plans. One copy of the geologic report shall be submitted with the grading permit and public improvement application. Prior to issuance of any permit, the applicant’s soils engineer shall review the final grading and drainage plans to ensure that designs for foundations, retaining walls, site grading, and site drainage are in accordance with their recommendations. The applicant’s soils engineer’s approval shall then be conveyed to the City either by letter or by signing the plans.

65. GRADING.

a) Grade any slopes with a vertical height of four (4) feet or more at a slope no steeper than 3H to 1V. Retaining walls that may be installed to reduce the slope must be masonry and comply with the City's building code.
b) Retaining wall or other suitable option acceptable by the City Engineer is required where the grade differential between property or adjacent lots are greater than 6". Retaining walls are required to be identified on the grading plans and shall have a note stating a separate building permit is required for retaining wall greater than four (4) feet in height, measured from the bottom of footing to top of wall.
c) At least one week prior to commencement of grading, the applicant shall post at the site and mail to the owners of property within 300 feet to the exterior boundary of the project site notice that construction work will commence. The notice shall include a list of contact persons with the name, title, phone number and area of responsibility. The person responsible for maintaining the list shall be included. The list shall always be kept current and shall consist of persons with authority to indicate and implement corrective action in their area of responsibility. The names of the individual responsible for noise and litter control shall be expressly identified in the notice. The notice shall be reissued with each phase of major grading activity. A copy of the notice shall be concurrently transmitted to the City Engineer. The notice shall be accompanied by a list of the names and addresses of the property owners noticed, and a map identifying the area noticed.
d) Submit a Haul Route Plan to the City Engineer for review and approval prior to importing or exporting any material from the site. The plan shall include the location of the borrow or fill area, the proposed haul routes, the estimated number and frequency of trips, and the proposed schedule of hauling. Based on this plan, the City Engineering shall determine whether pavement condition surveys must be conducted along the proposed haul routes to determine what impacts the trucking activities may have. The project proponents shall be responsible to repair to their pre-construction condition any roads along the utilized routes.
e) Prior to commencement of any site work that will be result in a land disturbance of one acre or more, the applicant shall provide evidence to the City Engineer that the requirements for obtaining a State General Construction Permit have been met. Such evidence may be a copy of the Notice of Intent Letter sent by the State Water Resources Control Board. The WDID Number shall be shown on the grading plan prior to approval by the City Engineer.
f) The burying of any construction debris is prohibited on construction sites.

66. NPDES – NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM. Comply with all rules, regulations and procedures of the NPDES for municipal, construction and industrial activities as promulgated by the California State Water Resources Control Board, the Regional Water Quality Control Board (Central

Valley – Region IV), including the Stormwater C.3 requirements as detailed in the Guidebook available at www.cccleanwater.org

Compliance shall include developing long-term best management practices (BMP's) for the reduction or elimination of storm water pollutants. The project design shall incorporate wherever feasible, the following long-term BMPs in accordance with the Contra Costa Clean Water Program for the site's storm water drainage.

- Offer pavers for household driveways and/or walkways as an option to buyers.
- Minimize the amount of directly connected impervious surface area.
- Delineate all storm drains with "No Dumping, Drains to the Delta" permanent metal markers per City Standards.
- Construct concrete driveway weakened plane joints at angles to assist in directing run-off to landscaped/pervious areas prior to entering the street curb and gutter.
- Distribute public information items regarding the Clean Water Program to buyers.
- Other alternatives as approved by the City Engineer.
- Prepare an Operations and Maintenance Manual for the project's storm water control measures.

*THE FOLLOWING SHALL BE SATISFIED PRIOR TO THE APPROVAL OF THE IMPROVEMENT PLAN:*

67. PUBLIC IMPROVEMENTS. Construct the project streets within public right of way to City public road standards and as shown on the Tentative Map with the following exceptions:

    a) The minimum street grade may be lowered from the standard 1% to 0.75% provided that the project proponent demonstrates that the City's drainage standards can be achieved.
    b) Submit a turning radius exhibit to the City Engineer for review and approval to illustrate that the ninety-degree turns of project streets can accommodate the largest expected vehicle to use the streets without the inclusion of City standard elbows. If the exhibit illustrates that elbows are necessary to accommodate the expected traffic, then they shall be included in the improvement plans.

68. ROADWAY IMPROVEMENTS. The following improvements shall be installed by the developer as shown on the Tentative Map. Plans for these roadway improvements shall be prepared by a California registered civil engineer, reviewed, and approved by the City, to the satisfaction of the City Engineer.

    a) Design and construct the roadway improvements for Sellers Avenue along the project frontage as shown on the Vesting Tentative Map with the exception of

the sidewalk, which shall be satisfied through payment of an in-lieu fee to the City of Oakley, subject to review and approval of the City Engineer. Pavement transitions shall be designed to accommodate the posted speed of 50 miles per hour. Any conforms to existing improvements must take place outside of the frontage limits of the project to the satisfaction of the City Engineer.

b) The frontage improvements along Laurel Road are to be installed through a fair share contribution to the City of Oakley as outlined in the preliminary cost estimate dated May 23, 2023 and submitted to the Public Works and Engineering Department. The Laurel Road extension will be constructed by the city as a Capital Improvement Project. The developer is responsible for a 12-foot travel lane, 8-foot bike lane, storm drain, streetlights, curb, gutter, sidewalk, and landscaping along the project frontage. The preliminary cost estimate shall be updated to account for inflation at the time of payment based on the Engineering News Record Construction Price Index. The fair share must be paid prior to the recordation of the final map.

69. DRAINAGE IMPROVEMENTS.

a) Collect and convey all stormwater entering and /or originating on this property, without diversion and within an adequate storm drainage facility, to an adequate natural watercourse having definable bed and banks, or to an existing adequate public storm drainage facility that conveys the storm waters to an adequate natural watercourse.
b) Submit a final hydrology and hydraulic report including 10-year and 100-year frequency event calculations for the proposed drainage system and stormwater pond to the city Engineer for review and approval. The report shall include study of the downstream storm drain facilities to confirm its adequacy and mitigate on-site so that the peak flows of post-project conditions do not exceed the pre-project peak flows.
c) Design and construct all storm drainage facilities in compliance with the Municipal Code and City design standards.
d) Prevent storm drainage from draining across the sidewalk(s) and driveway(s) in a concentrated manner.
e) Dedicate a public drainage easement over the drainage system that conveys storm water run-off from public streets.
f) On-site parking area and driveways shall not surface drain across public sidewalk or driveway aprons.

70. SIGHT DISTANCE EXHIBIT. For the project driveways' ingress and egress, provide an exhibit that will analyze the sight distance required for the appropriate speed limit identified with this project as required by the City Engineer.

71. DESIGN CHANGES. The Applicant's registered Engineer shall notify the City Engineer, in writing, at least 72 hours in advance of all differences between the proposed work and the design indicated on the plans. Any proposed changes shall

be subject to the approval of the City before altered work is started. A plan revision must be submitted for approval by the City Engineer.

72. JOINT TRENCH PLANS. The applicant shall submit Joint Trench Composite Plans to the City for review prior to approval of improvement plans or recordation of the final map. The developer shall provide joint trench composite plans for the underground electrical, gas, telephone, cable television and communication conduits and cables including the size, location and details of all trenches, locations of building utility service stubs and meters and placements or arrangements of junction structures as a part of the improvement Plan submittals for the project. The composite drawings and/or utility improvement plans shall be signed by a licensed civil engineer. The joint trench plans shall include street and/or site lighting and associated photometrics. A letter shall be provided by PG&E stating that public streetlight billing will be per Rule LS2A, and that private lights shall be metered with billing to the owner. Pole numbers, assigned by PG&E, shall be clearly delineated on the plans.

73. UTILITIES & UNDERGROUNDING.

    a) Underground all new and existing utility distribution facilities per City of Oakley code section Title 6 Chapter 8 Underground Utility Districts.
    b) All utility boxes shall be installed underground, and all wires and cables must be installed in conduits. Compliance with this condition shall be at the discretion of the City Engineer.
    c) Above ground utility boxes shall be camouflaged per the review and approval of the City Engineer.
    d) A written approval from Diablo Water District and Iron House Sanitary District must be provided that all underground utility improvements have passed all testing requirements prior to commencement of paving a street.

74. STREETLIGHTS. Install streetlights along all public streets as required by the City Engineer. The City Engineer shall determine the final number and location of the lights, and the lights shall be on an LS2-A rate service. Streetlights shall be spun aluminum “cobra head” style or decorative residential street lights as required by the City of Oakley Standard Plans.

75. LANDSCAPING IN PUBLIC RIGHT OF WAY.

    a) Prepare landscape plans for landscape improvements within the public right of way. Landscape plans shall be prepared by a licensed landscape architect.
    b) Install public right-of-way landscaping along the project’s frontages as required by the City Engineer and Community Development Director.
    c) Maintain all landscaping within the public right-of-way until such time that the adjacent roadway improvements have been accepted for maintenance.
    d) Prior to the issuance of certificate of occupancy, an inspection will be performed to verify the health and location of the street trees. Trees in poor health or

those without adequate clearance from utilities will require replacement or relocation.

76. FENCING. Any proposed fencing and walls shall be located on private property and maintained by the property owner or owner.

77. SOUNDWALL. Soundwalls along Sellers Avenue and Laurel Road shall be installed within private property and not within public right of way. The soundwall must match the proposed soundwalls in this area or approved equal to the satisfaction of the City Engineer.

78. MAINTENANCE EXHIBIT. Submit a maintenance exhibit showing the responsible maintenance entity of proposed subdivision improvements. Exhibit must clearly show which areas are to be maintained by the City of Oakley.

    a) Parcel A and B are to be retained and maintained by the Owner/Developer/Homeowners Association.
    b) Bioretention Areas to be maintained by the Homeowners Association.

*THE FOLLOWING PUBLIC WORKS AND ENGINEERING CONDITIONS OF APPROVAL SHALL BE SATISFIED PRIOR TO THE APPROVAL OF THE <u>FINAL MAP</u>:*

79. BONDS. The applicant shall supply suitable securities for all improvements that are a part of the development in a form acceptable to the City in the amount of 100% (performance), 50% (labor and material) prior to issuance of any permit.

80. FINAL MAP. Submit a Final Map prepared by a Licensed Land Surveyor. The final map shall be recorded, and the Subdivision Agreement must be executed before any building permits are issued. Insurance shall be provided per the terms of the Subdivision Agreement.

81. DEDICATIONS. The following shall be dedicated on the final map. The dedication shall be recorded before any permits are issued and under specific timelines listed below:

    a) Dedicate the required right-of-way along the project frontage on Sellers Avenue and Laurel Road as shown in the typical sections of the Tentative Map.
    b) Public Utility Easement (PUE): 5’ PUE beyond public right of way as required.
    c) Ingress-egress, storm drainage easements, emergency access easements as required.

    Any necessary rights of way, rights of entry, permits and/or easements for the construction of off-site, temporary or permanent, public and private road, utility and drainage improvements shall be furnished to the City. Prior to the issuance of the first building permit, the applicant must provide the necessary documentation that any existing easements no longer necessary have been quitclaimed.

82. PRIVATE EASEMENTS. Agreements detailing rights, limitations, and responsibilities of involved parties shall accompany each private easement. The easements and associated agreements shall be recorded simultaneously with the final map.

83. UTILITY SETBACKS. Building foundations shall be set back from utility lines a sufficient distance to allow excavation of the utility without undermining the house foundation. The City Engineer shall determine the appropriate setback based on the depth of the utility, input from the project soils engineer, and the type of foundation.

84. DRAINAGE FEES. This project is within the Emerson Lake drainage watershed. Payment to comply with the "Reimbursement Agreement for the Storm Drainage Improvements related to Conditions of Approval for the Emerson Ranch Project" must be paid prior to the recordation of the Final Map. (Agreement recorded document reference DOC-2021-0014471 January 15, 2021).

85. ANNEXATIONS

a) The applicant shall establish a funding mechanism to cover the ongoing financial impact their project has on fire protection services provided in the City. All costs associated with meeting this condition of approval shall be paid for by the applicant. Compliance with this requirement shall be to the satisfaction of the City Engineer and shall be completed prior to final map approval.
b) The applicant shall establish a funding mechanism to cover the ongoing financial impact their project has on police services provided in the City. All costs associated with meeting this condition of approval shall be paid for by the applicant. Compliance with this requirement shall be to the satisfaction of the City Engineer and shall be completed prior to final map approval.
c) The applicant shall establish a funding mechanism to cover the ongoing financial impact their project has on maintenance and operation services associated with public landscaping, parks, streetlighting, and stormwater facilities. All costs associated with meeting this condition of approval shall be paid for by the applicant. Compliance with this requirement shall be to the satisfaction of the City Engineer and shall be completed prior to final map approval.

*THE FOLLOWING SHALL BE SATISFIED PRIOR TO THE ISSUANCE OF THE BUILDING PERMIT:*

86. PAD CERTIFICATION. A letter from a licensed land surveyor stating that the building pad was constructed in accordance with the approved plans shall be provided prior to the issuance of the building permit.

87. SOILS ENGINEER CONSTRUCTION OBSERVATION. During construction, all excavations and grading shall be inspected by the applicant's soils engineer prior to placement of concrete and/or backfill so they can verify that the actual conditions are as anticipated in the design-level geotechnical report and recommend appropriate changes in the recommendations contained in the report, if necessary. The results of the construction observation and testing should be documented in an "as-built" letter/report prepared by the applicants' soils engineer and submitted to the City before any building permit is granted.

88. AGREEMENT FOR STORMWATER BEST MANAGEMENT PRACTICES INSPECTION AND MAINTENANCE OBLIGATIONS. The property owner shall enter into an agreement with the City for maintenance of the stormwater filtration devices required to be installed on this project. The agreement will specify that certain routine maintenance shall be performed by the property owner and will specify device maintenance reporting requirements. The agreement will also specify routine inspection requirements, permits and payment of fees. The agreement shall be recorded prior to release of any occupancy permits.

89. AS-BUILT PLANS. After completion of the construction of all work, the original plans shall have all changes (change orders and field changes) clearly marked. The "as-built" plans shall again be signed and "wet-stamped" by the civil engineer who prepared the plans, attesting to the changes. The original "as-built" plans shall be review and approved the Engineering Inspector. A Mylar and AutoCAD disk of the approved "as-built" plans shall be provided to the City before acceptance of improvements.

90. IMPACT FEES. Comply with the requirements of the development impact fees listed below, in addition to those noticed by the City Council in Resolution 85-00 and 08-03. The applicant shall pay the fees in the amounts in effect at the time each building permit is issued.

    a) Traffic Impact Fee (authorized by Ordinance No. 14-00, adopted by Resolution 49-03);
    b) Regional Transportation Development Impact Mitigation Fee or any future alternative regional fee adopted by the City (authorized by Ordinance No. 14-00, adopted by Resolution No. 73-05);
    c) Park Land Dedication In-Lieu Fee (adopted by Ordinance No. 03-03);
    d) Park Impact Fee (authorized by Ordinance No. 05-00, adopted by Resolution No. 19-03);
    e) Public Facilities Fee (authorized by Ordinance No. 05-00, adopted by Resolution No. 18-03);
    f) Fire Facilities Impact Fee (adopted by Resolution No. 24-21);
    g) General Plan Fee (adopted by Resolution No. 53-03);
    h) East Contra Costa County Habitat Conservation Plan Fee (adopted by Ordinance 8-21).

The applicant should contact the City Engineer prior to constructing any public improvements to determine if any of the required improvements are eligible for credits or reimbursements against the applicable traffic benefit fees or from future developments.

## ADVISORY NOTES

**The following Advisory Notes are provided to the applicant as a courtesy but are not a part of the conditions of approval. Advisory Notes are provided for the purpose of informing the applicant of additional ordinance requirements that must be met in order to proceed with development.**

A. The applicant/owner should be aware of the expiration dates and renewing requirements prior to requesting building or grading permits.
B. The project will require a grading permit pursuant to the Ordinance Code.
C. Applicant shall comply with the requirements of Iron House Sanitary District.
D. The applicant shall comply with the requirements of the Diablo Water District.
E. Comply with the requirements of the Contra Costa Fire Protection District.
F. Comply with the requirements of the Building Inspection Division. Building permits are required prior to the construction of most structures.
G. This project may be subject to the requirements of the Department of Fish and Game. It is the applicant's responsibility to notify the Department of Fish and Game, P.O. Box 47, Yountville, California 94599, of any proposed construction within this development that may affect any fish and wildlife resources, per the Fish and Game Code.
H. The applicant shall be responsible for paying the County Recorder's Fee for the Notice of Determination as well as the State Department of Fish and Game's Filing Fee.

**PASSED AND ADOPTED** by the City Council of the City of Oakley at a meeting held on the 11th day of July 2023 by the following vote:

AYES:
NOES:
ABSENT:
ABSTENTIONS:

APPROVED:

_____
Aaron Meadows, Mayor Date

ATTEST:

_____
Libby Vreonis, City Clerk Date

# Sellers Avenue Subdivision
# Mitigation Monitoring Program

## – January 2023

The California Environmental Quality Act (CEQA) and CEQA Guidelines require Lead Agencies to adopt a program for monitoring the mitigation measures required to avoid significant environmental impacts of a project. The Mitigation Monitoring Program ensures that mitigation measures imposed by the City are completed at the appropriate time in the development process.

The mitigation measures identified in the Sellers Avenue Subdivision Initial Study/Mitigated Negative Declaration are listed below along with the party responsible for implementation of the mitigation measure, the party responsible for monitoring implementation of the mitigation measure, the milestones for implementation and monitoring, and a sign off that the mitigation measure has been implemented.

| MITIGATION MONITORING PROGRAM<br>Sellers Avenue Subdivision | | | | | |
|---|---|---|---|---|---|
| **Impact Number** | **Impact** | **Mitigation Measure** | **Monitoring Agency** | **Implementation Schedule** | **Sign-off** |
| **Cultural Resources** | | | | | |
| V (a-c). | Would the project cause a substantial adverse change in the significance of a historical resource or unique archaeological resource pursuant to Section 15064.5, or disturb any human remains, including those interred outside of dedicated cemetaries? | *V-1.* *Prior to the demolition of any on-site buildings, a qualified architectural historian, as approved by the City of Oakley Planning Division, shall evaluate the project site and the on-site structures for qualification per CRHR criteria. If the on-site buildings do not qualify for protection, further mitigation is not required.*<br><br>*If the on-site buildings meet the CRHR criteria, then the structures shall be properly documented prior to their demolition. The documentation shall, at a minimum, consist of a report documenting the historical context with descriptive narrative of the resource, and an update of the resource's Department of Parks and Recreation form 523 record. The photo-documentation shall capture the form, materials, design, and setting of the buildings to preserve those characteristics that justify their California Register eligibility. If building relocation is pursued, the photo-documentation shall include views of the resources in their new locations, with an emphasis on the context and architectural setting of their new surroundings. The photo-documentation shall be prepared in concert with a historical context statement and narrative description of the buildings to place the properties in their architectural and historical context. The documentation package shall be distributed to the NWIC, the Contra Costa County Historical Society, the City of Oakley, the Oakley Chamber of Commerce, and, for the purposes of public outreach, the Oakley Public Library.* | City of Oakley Planning Division<br><br>Qualified Architectural Historian | Prior to the demolition of any on-site buildings. | |

| MITIGATION MONITORING PROGRAM<br>Sellers Avenue Subdivision | | | | | |
|---|---|---|---|---|---|
| **Impact Number** | **Impact** | **Mitigation Measure** | **Monitoring Agency** | **Implementation Schedule** | **Sign-off** |
| | | *Proof of compliance with the foregoing measure shall be submitted to the City of Oakley Planning Division for review and approval.* | | | |
| | | *V-2. If buried archaeological, paleontological, and/or cultural resources are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the discovery and the developer shall immediately notify the City of Oakley Planning Division of the discovery. In such case, the developer shall be required, at their own expense, to retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery, as appropriate. The archaeologist shall be required to submit to the City of Oakley Planning Division for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery would not be allowed until the preceding work has occurred.*<br><br>*The foregoing requirements shall be noted on the project improvement plans, subject to review and approval by the City of Oakley Planning Division.* | City of Oakley Planning Division<br><br>Qualified Archaeologist | If buried archaeological, paleontological, and/or cultural resources are encounterd during site grading or other site work. | |
| | | *V-3. Pursuant to State Health and Safety Code §7050.5 (c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop within 100 feet of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission, who shall notify the person believed to be the most likely descendant. The most likely descendant shall* | City of Oakley Planning Division<br><br>Contra Costa County Coroner<br><br>Native American Heritage | If human bone or bone of unknown origin is found during construction. | |

| MITIGATION MONITORING PROGRAM<br>Sellers Avenue Subdivision | | | | | |
|---|---|---|---|---|---|
| **Impact Number** | **Impact** | **Mitigation Measure** | **Monitoring Agency** | **Implementation Schedule** | **Sign-off** |
| | | *work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place within 100 feet of the find until the identified appropriate actions have been implemented.*<br><br>*The foregoing requirements shall be noted on the project improvement plans, subject to review and approval of compliance by the City of Oakley Planning Division.* | Commission | | |
| **Geology and Soils** | | | | | |
| VII (f). | Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | *VII-1. Implement Mitigation Measures V-2 and V-3.* | See Mitigation Measures V-2 and V-3. | See Mitigation Measures V-2 and V-3. | |
| **Greenhouse Gas Emissions** | | | | | |
| VIII (a,b). | Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses? | *VIII-1. Consistent with the BAAQMD's thresholds of significance, prior to issuance of building permits for the proposed project, the project applicant shall demonstrate via project design and/or notation included on project design that natural gas infrastructure shall be prohibited.*<br><br>*Conformance with the foregoing requirement shall be confirmed through review and approval of building permit plans by the City of Oakley Planning Division.* | City of Oakley Planning Division | Prior to the issuance of building permits. | |
| **Hazards and Hazardous Materials** | | | | | |
| IX (b). | Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment? | *IX-1. Prior to initiation of ground-disturbing activities, the project applicant shall complete sampling and testing of on-site soils for organochlorine pesticides (OCPs) and arsenic in accordance with the California Department of Toxic Substances Control's 2009 Interim Guidance for Sampling Agricultural Properties (Third Revision) and U.S. Environmental Protection Agency (USEPA) Method 8081A, respectively. In the event that soil* | City of Oakley Planning Division | Prior to the initiation of ground-disturbing activities. | |

| MITIGATION MONITORING PROGRAM<br>Sellers Avenue Subdivision | | | | | |
|---|---|---|---|---|---|
| **Impact Number** | **Impact** | **Mitigation Measure** | **Monitoring Agency** | **Implementation Schedule** | **Sign-off** |
| | | *is determined to be hazardous by exceeding the USEPA Regional Screening Level for residential exposure scenarios, the soil shall be transported and disposed of at a Class I facility permitted by the California Department of Toxic Substances Control. Hazardous waste shall be transported to disposal by a licensed hazardous waste hauler under a uniform hazardous waste manifest. A State of California environmental regulatory agency or a local agency that meets the requirements of Health and Safety Code Section 101480 shall provide regulatory concurrence on the sampling plans, conclusion, and recommendations. The results of soil sampling and analysis, as well as verification of proper remediation and disposal, if warranted, shall be submitted to the City's Planning Division for review and approval.* | | | |
| | | *IX-2. Prior to issuance of a demolition permit by the City for any on-site structures, the project applicant shall provide a site assessment that determines whether any structures to be demolished contain asbestos-containing materials (ACMs), mercury, polychlorinated biphenyl (PCB) caulk, or lead-based paint (LBP). Sampling shall be conducted in accordance with the California Department of Toxic Substances Control's 2006 Interim Guidance Evaluation of School Sites with Potential Contamination from Lead based Paint, Termiticides, and Electrical Transformers. If the on-site structures do not contain either any of the foregoing materials, further mitigation is not required; however, if ACMs, mercury, PCB caulk, or LBP are identified, the materials shall be removed and disposed of by a licensed and certified contractor in accordance with California* | City of Oakley Planning Division | Prior to the issuance of a demolition permit. | |

| MITIGATION MONITORING PROGRAM<br>Sellers Avenue Subdivision | | | | | |
|---|---|---|---|---|---|
| **Impact Number** | **Impact** | **Mitigation Measure** | **Monitoring Agency** | **Implementation Schedule** | **Sign-off** |
| | | *Air Resources Board recommendations and OSHA requirements. Work practice standards generally include appropriate precautions to protect construction workers and the surrounding community, and appropriate disposal methods for construction waste in accordance with federal, State, and local regulations. The results of the site assessment, as well as verification of proper disposal, if warranted, shall be submitted to the City's Planning Division for review and approval.* | | | |
| | | *IX-3. During ground-disturbing activities, if one or more wells and/or septic systems are identified on-site, the project applicant shall hire a licensed contractor to obtain the applicable abandonment permit from Contra Costa County Environmental Health Division (CCCEHD), and properly abandon the on-site wells and/or septic systems for review and approval by the CCCEHD and the City's Planning Division.* | City of Oakley Planning Division<br><br>CCCEHD | During ground-disturbing activities, if one or more wells and/or septic systems are identified on-site. | |
| **Noise** | | | | | |
| XIII (a). | Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinacnce, or applicable standards of other agencies? | *XIII-1. Prior to the approval of grading permits, the following criteria shall be established and noted on graded plans, subject to review and approval by the City of Oakley Planning Division:*<br><br>• *Construction activities shall be limited to between the daytime hours of 7:30 AM to 7:00 PM Monday through Friday, and 9:00 AM to 7:00 PM on Saturdays, Sundays, and holidays.*<br>• *Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations.* | City of Oakley Planning Division | Prior to the approval of grading permits. | |

| MITIGATION MONITORING PROGRAM<br>Sellers Avenue Subdivision | | | | | |
|---|---|---|---|---|---|
| **Impact Number** | **Impact** | **Mitigation Measure** | **Monitoring Agency** | **Implementation Schedule** | **Sign-off** |
| | | *Equipment engine shrouds shall be closed during equipment operation.*<br>• *When not in use, motorized construction equipment shall not be left idling for more than five minutes.*<br>• *Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or sufficiently shielded to reduce noise-related impacts.* | | | |
| **Transportation** | | | | | |
| XVII (c,d). | Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), or result in inadequate emergency access? | *XVII-1. Prior to issuance of demolition or grading permits, the project applicant shall prepare and submit a Traffic Control Plan to the City for review and approval. The Traffic Control Plan shall include, but not be limited to, the following items, to the satisfaction of the City Engineer.*<br>• *Truck drivers shall be notified of and required to use the most direct route between the site and SR 4, as determined by the City Engineering Department;*<br>• *All site ingress and egress shall occur only at the main driveways to the project site and construction activities may require installation of temporary (or ultimate) traffic signals as determined by the City Engineer;*<br>• *Specifically-designated travel routes for large vehicles shall be monitored and controlled by flaggers for large construction vehicle ingress and egress;*<br>• *Warning signs indicating frequent truck entry and exit shall be posted on Sellers Avenue;* | City of Oakley Planning Division<br><br>City Engineer | Prior to the issuance of demolition or grading permits. | |

| MITIGATION MONITORING PROGRAM<br>Sellers Avenue Subdivision | | | | | |
|---|---|---|---|---|---|
| **Impact Number** | **Impact** | **Mitigation Measure** | **Monitoring Agency** | **Implementation Schedule** | **Sign-off** |
| | | • *Any debris and mud on nearby streets caused by trucks shall be monitored daily and may require instituting a street cleaning program;*<br>• *Construction employee parking shall be provided on the project site to eliminate conflicts with nearby areas. Construction of the project shall be staggered so that employee parking demand is met primarily by using on-site parking; and*<br>• *If importation and exportation of material becomes a traffic nuisance, the City Engineer shall limit the hours the activities can take place.* | | | |
| **Tribal Cultural Resources** | | | | | |
| XVIII (a,b). | Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred places, or object with cultural value to a California Native American Tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020. 1(k); or a resource determined by the lead agency, in its descretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources | *XVIII-1. Implement Mitigation Measures V-2 and V-3.* | See Mitigation Measures V-2 and V-3. | See Mitigation Measures V-2 and V-3. | |

| MITIGATION MONITORING PROGRAM<br>Sellers Avenue Subdivision | | | | | |
|---|---|---|---|---|---|
| **Impact Number** | **Impact** | **Mitigation Measure** | **Monitoring Agency** | **Implementation Schedule** | **Sign-off** |
| | Code Section 5024.1, the lead agency shall consider the significance of the rsource to a California Native American tribe. | | | | |

# STAFF REPORT

OAKLEY
CALIFORNIA

**DATE:** July 11, 2023

Approved and Forwarded to the City Council

**TO:** Joshua McMurray, City Manager

**FROM:** Tim Przybyla, Finance Director

**SUBJECT:** Consideration of a Resolution Establishing a Master Fee Schedule and Updating Certain City Fees

## Background and Analysis

On May 23rd, the City Council approved a resolution establishing a master fee schedule and updating certain City fees and refuse fees, which will be effective July 22, 2023. During the May 23rd City Council meeting, the City Council requested a revision to the City of Oakley Master Fee Schedule that would allow Oakley based businesses to pay the same fees that Oakley residents and Oakley based non-profit organizations pay for the rental of fields, group picnic areas and the Oakley Recreation Center. That proposed change can be accomplished by simply adding ", Oakley Based Businesses" into the Group 1 category heading on page 11 of the Master Fee Schedule.

As for the process of adopting fees, State law requires that changes to the City's fees be presented to the City Council at a public hearing; and that there be two publications of the meeting notice, so that advance notice is provided to any party that requests to be notified of any proposed fee adjustments, and that the full package of the proposal is made available to the public no less than 10 days prior to the Hearing. In addition, approved changes to City fees may take effect no less than 60 days after approval.

Staff has met the publishing and noticing requirements for the proposed changes herein, and Staff is recommending that any changes approved pursuant to this item become effective on Tuesday, September 11, 2023, which is 62 days from the date of this meeting.

## Consistency with the Oakley Strategic Plan 27+

The approval of this resolution is consistent with the SP 27+ Finance and Fiscal Responsibility Goal to leverage the City's financial resources for the long-term benefit of our residents and businesses.

## Fiscal Impact

The fiscal impact of the recommended action is not expected to be significant. The recommendation only includes minor decreases to the existing fee levels for Oakley based businesses related to the rental of fields, group picnic areas and the Oakley Recreation Center.

## Staff Recommendation

Staff Recommendation: 1) Receive the Staff Report, 2) Receive Questions from the City Council, 3) Open the Public Hearing, 4) Receive Public Testimony, 5) Close the Public Hearing, 6) Deliberate, 7) Summarize the Deliberation 8) Adopt the Resolution

## Attachments

1. Resolution
2. Master Fee Schedule

**RESOLUTION NO. XX-23**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OAKLEY ADOPTING A MASTER FEE SCHEDULE**

**WHEREAS,** the City Council of the City of Oakley has the authority to establish fees for City services; and

**WHEREAS**, the City finds it necessary to recover the costs of providing certain City services and said fees do not exceed the reasonable costs of providing the services for which fees are imposed; and

**WHEREAS**, the consolidation of all City fees will assist the public, as well as City staff in readily locating fees and to continue governmental transparency; and

**WHEREAS**, the proposed Master Fee Schedule will supersede any previously adopted or established fee for specified City services; and

**WHEREAS**, the Master Fee Schedule will be evaluated each year to ensure that services are provided while consideration is taken into account in regards to cost recovery for services provided by the City; and

**WHEREAS**, public comment has been received on the compilation of existing fees into a Master Fee Schedule (Exhibit "A") and proposed fee modifications contained within the Master Fee Schedule; and

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF OAKLEY DOES HEREBY FIND, PROCLAIM, ORDER AND RESOLVE AS FOLLOWS:**

Section 1. The foregoing recitals are true and correct, and the City Council so finds and determines.

Section 2. That the fees shown in Exhibit "A" are hereby adopted and supersede any previously established fee for the identified City services.

Section 3. The City fees shown in Exhibit "A" shall become effective July 11, 2023.

**PASSED AND ADOPTED** by the City Council of the City of Oakley this 11th day of July 2023 by the following vote:

AYES:
NOES:
ABSTENTION:
ABSENT:

APPROVED:

_____
Aaron Meadows, Mayor

ATTEST:

_____
Libby Vreonis, City Clerk

_____
Date

# Master Fee Schedule
# Effective September 11, 2023

OAKLEY

CALIFORNIA

| GENERAL ADMINISTRATIVE SERVICES | FIXED FEE | TIME & MATERIAL DEPOSIT | ADDITIONAL FEE OR DEPOSIT COMMENT |
|---|---|---|---|
| Passport Photos | $15.00 | | |
| Passport Execution Fee | $35.00 | | |
| Copying (8 1/2 x 11) | $.40 1st page$.25 thereafter | | |
| Copying (8 1/2 x 14) | $.65 1st page$.50 thereafter | | |
| Copying (11 x 17 or color copies) | $1.00 1st page$.75 thereafter | | |
| Promotional Items | | | Cost + 10% |
| Return Check Fee | $25/$35 | | $25 for 1st, $35 for Subsequent |
| Zoning/Subdivision Map | | | Time and Materials Charge |
| General Plan Copy | | | Time and Materials Charge |
| Subpoena Services | $24 per hour plus $.10 per page | | |
| Subpoena Witness Fees | | $275.00 | Per Day plus current IRS rate per mile of travel |
| Research & Information Services | | Based on Staff Estimate | Time and Materials Charge |
| Administrative Hearing | | | Time and Materials Charge |
| Administrative Penalty Citation | $100.00 | | For 1st citation in 1 year; $200 and $500 for subsequent citations in 1 year |
| Copy of Meeting on Flash Drive, CD, or DVD | | | Varies, fee is cost of recording media only |
| Recreation Class Cancellation Fee | | | $38 maximum or class fee if cancelled within 2 weeks of the first class |
| Filing Fee for Notice of Intent to Circulate an Initiative Petition | | $200.00 | Deposit is refunded to the filer if, within one year of the date of filing the notice of intent, the elections official certifies the sufficiency of the petition. |
| Business License Annual Fee | $100.00 | | $100 plus $10 per full time equivalent employee (pro-rated by quarter for new licenses) |
| CASP Annual Fee | $4.00 | | Per SB 1186 |
| Transfer of License or Location | $10.00 | | |
| Lost License/Duplicate License | $10.00 | | |
| EV Vehicle Charging Fee | $.30/kwh | | |

| SPECIAL PERMITS & LICENSES | FIXED FEE | TIME & MATERIAL DEPOSIT | ADDITIONAL FEE OR DEPOSIT COMMENT |
|---|---|---|---|
| Adult Business Permits | | $1,704.00 | Time and Materials Charge |
| Massage Parlor Permits | | $1,196.00 | Time and Materials Charge |
| Masseuse Permits | $364.00 | | Ability to charge are subject to limits by State Law. |
| **Bingo Licenses** | | | |
| New | $50.00 | | |
| Renewal | $10.00 | | |
| Public Dance Licenses | $406.00 | | |
| Sound Amplification Permit | $406.00 | | |
| Taxicab Owner Permit | $316.00 | | |
| Taxicab Driver Permit | $316.00 | | |
| Tobacco License | $458.18 | | Per License (Resolution 03-19) |

| PLANNING DEPARTMENT SERVICES | FIXED FEE | TIME & MATERIAL DEPOSIT | ADDITIONAL FEE OR DEPOSIT COMMENT |
|---|---|---|---|
| **VARIANCES:** | | | |
| Planning Commission/City Council Review | | $2,900.00 | Time and Materials Charge |
| Zoning Administrator Review | $649.00 | | |
| **CONDITIONAL USE PERMITS:** | | | |
| Planning Commission/City CouncilReview | | $3,500.00 | Time and Materials Charge |
| Zoning Administrator Review | $649.00 | | |
| **SIGN PERMITS:** | | | |
| Administrative Approval | $81.00 | | |
| Planning Commission Approval | | $1,500.00 | Time and Materials Charge |
| **DEVELOPMENT PLANS/DESIGN REVIEWS:** | | | |
| ZoningAdministrator Review – Minor (Building Additions, Re-Facades, and Re-Paints) | $162.00 | | |
| ZoningAdministrator Review – Major (All Others) | $1,215.00 | | |
| Planning Commission/City Council Review - Minor (ZA referrals, significant painting/facades) | | $2,400.00 | Time and Materials Charge |
| Planning Commission/City Council Review - Major (Tent. Map- Homes, New Commercial/Industrial Construction) | | $4,000.00 | Time and Materials Charge |
| **SUBDIVISIONS:** | | | |
| Tentative Map for 5 or More Lots (MajorSubdivision) | | $12,000.00 | Plus $100 per lot/unit over 50 |
| Tentative Parcel Map for Less than 5 Lots(Minor Subdivision) | | $5,500.00 | Time and Materials Charge |
| Reversion to Acreage | | $1,900.00 | Time and Materials Charge |
| Condo/Conversion tentative map | | $7,000.00 | Plus $100 per lot/unit |
| **REZONINGS:** | | | |
| Rezoning | | $6,500.00 | Time and Materials Charge |
| **GENERAL & SPECIFIC PLANS:** | | | |
| Preliminary Review ("Merit" Review for Applicant) | | $2,000.00 | Time and Materials Charge |
| Formal General Plan and Specific Plan Submittal | | $10,000.00 | Time and Materials Charge |
| **APPEALS:** | | | |
| Applicant appeal | | $1,500.00 | Time and Materials Charge |
| Neighbor/Non-Applicant Appeal | $109.00 | | |
| **PERMIT EXTENSIONS:** | | | |
| Administrative | $162.00 | | |
| Public hearing | | $1,000.00 | Time and materials charge |
| **TREES:** | | | |
| Application to Destroy, Cut Down or Remove Protected Tree | $450.00 | | Per tree; only charged if not part of a project |
| Appeal of Decision to Destroy, Cut Down or Remove Protected Tree | $140.00 | | Per tree |
| Damage to Protected Tree (Penalty) | Per OMC | | |
| **OTHER FEES:** | | | |
| Zoning Verification Letter | $274.31 | | |
| Additional HCP Application Review Fee (for applicable projects) | | $700.00 | Time and Materials Charge |
| Firearm Sales License and Renewals | $219.00 | | |
| Home Occupation Permit | $109.00 | | |
| Short Term Rental Permit | $129.00 | | |
| Vendor Permit and Renewal | $129.00 | | |
| **DEVELOPMENT AGREEMENTS:** | | | |
| Preliminary Review ("Merit" Review for Applicant) | $500.00 | | |
| Completion of Review | | $3,000.00 | Time and Materials Charge |
| Construction and Debris Plan Fees (Solid Waste Diversion) | $41.00 | | |
| Residential Density Bonus Review | | $1,400.00 | Time and Materials Charge |

| PUBLIC WORKS SERVICES | FIXED FEE | TIME & MATERIAL DEPOSIT | ADDITIONAL FEE OR DEPOSIT COMMENT |
|---|---|---|---|
| **ENCROACHMENT PERMIT REVIEW & INSPECTIONS:** | | | |
| **SMALL ENCROACHMENT PERMIT CATEGORY** | | | All fees include inspection and current USA fee |
| General Encroachment Permit (Curb, Sidewalk, Driveway) | $370.00 | | |
| Tree Removal | $215.00 | | |
| Debris Box/Storage Container | $215.00 | | |
| Site Access Permit | $215.00 | | |
| **LARGE ENCROACHMENT PERMIT CATEGORY** | | | |
| Large Permit <= $10,000 | $1,480.00 | | |
| Large Permit > $10,000 | | Based on Estimate + Bond (see plan check and inspection rates below) | Time and Materials Charge |
| **OTHER ENCROACHMENT** | | | |
| Utility Company or District Project | $445.00 | | ~~Time and Materials Charge~~ |
| Work Done Without Permits | $1,000.00 | | Plus double inspection and permit fees |
| No Inspection Notification for Permitted Work | $1,000.00 | | Plus inspection fees |
| **MISCELLANEOUS ROAD PERMIT APPLICATIONS:** | | | |
| House Move Review | $613.00 | | |
| House Move Inspection | $230.00 | | |
| Extra Legal Load | $16.00 | | $16 set by State; or $100/yr + $100 security deposit |
| Road Closure Permit, Ext / Mod (Major Construction Projects) | $3,135.00 | | |
| **TEMPORARY ROAD CLOSURES/CONSTRUCTION/SPECIAL EVENTS:** | | | |
| Not For Profit Applicant | $60.00 | | |
| For Profit Applicant | $799.00 | | |
| **SUBDIVISION MONUMENT CHECKING:** | | | |
| 1 - 2 Monuments | $575.00 | | |
| 3 - 5 Monuments | $690.00 | | |
| 6 - 9 Monuments | $800.00 | | |
| 10 or more new monuments | $915.00 | | Plus $66 per monument over 10 |
| Error Resolution / Discussion | | $1,850.00 | Time and Materials Charge |
| **MAP CHECKING:** | | | |
| Final Map | | $6,500.00 | Time and Materials Charge Plus $60 per lot |
| Parcel Map | | $3,000.00 | Time and Materials Charge Plus $60 per lot |
| Base Map Revision | $60.00 | | Per Lot |
| Certificate of Correction Review | | $1,500.00 | Time and Materials Charge |
| Amended Map Revision | | $1,500.00 | Time and Materials Charge Plus $60 per lot |
| **ROAD VACATIONS:** | | | |
| Map Exists | | $2,302.00 | Time and Materials Charge |
| No Map Exists | | $2,302.00 | Time and Materials Charge |
| **ROAD MISCELLANEOUS:** | | | |
| Road Name Change-Public Road | $1,790.00 | | Plus $265 for 1 intersection & $64 each additional intersection |
| Address Change/Private Road Name Change | $1,790.00 | | |
| **PUBLIC IMPROVEMENT PLAN REVIEW:** | | | |
| Plan Review | | | |
| $10,000 - 25,000 | | $500.00 | Plus 8% of improvements |
| $25,001 - $50,000 | | $6,000.00 | Plus 6% of improvements |
| $50,001 or more | | $7,500.00 | Plus 2% of improvements over $50,000 |
| Landscaping Plan Review (Parks Department) | | $2,000.00 | Plus 2% of improvements |
| Commercial Site Plan Review | | $7,500.00 | Plus 2% of improvements |
| C.3 Compliance Review | | $4,200.00 | Time and Materials Charge |
| Bridges or Major Structures | | $15,000.00 | Plus 6% of improvements |

| PUBLIC WORKS SERVICES | FIXED FEE | TIME & MATERIAL DEPOSIT | ADDITIONAL FEE OR DEPOSIT COMMENT |
|---|---|---|---|
| **RELATED REVIEW:** | | | |
| Drainage Review (no improvement plans) | | $2,400.00 | Time and Materials Charge |
| Condition of Approval Compliance Check (no improvement plans) | | $2,000.00 | Time and Materials Charge |
| Certificate of Compliance | | $2,475.00 | Time and Materials Charge |
| Lot line adjustment | | $3,900.00 | Time and Materials Charge |
| **PUBLIC IMPROVEMENT INSPECTION:** | | | |
| $10,000 - $50,000 | | $2,000.00 | Time and Materials Charge Plus 6.5% of improvements |
| $50,001 - 100,000 | | $6,000.00 | Time and Materials Charge Plus 6.5% of improvements |
| $100,001 or more | | $15,000.00 | Time and Materials Charge Plus 4.5% of improvements over $100,000 |
| Commercial Site Plan Inspection | | $6,500.00 | Time and Materials Charge Plus 8% of improvements |
| Bridges or Major Structures | | $14,000.00 | Time and Materials Charge Plus 7% of improvements |
| Landscaping (Parks Department) | | $3,500.00 | Time and Materials Charge Plus 8% of improvements |
| **FLOODPLAIN MANAGEMENT PROGRAM:** | | | |
| Flood Zone Determination - Office Review | $80.00 | | Per lot, $402 max for adjacent lots |
| Flood Zone Determination - Field Visit Review | $432.00 | | Plus $67/lot, $734 max for adjacent lots |
| Floodplain Management Compliance | $48.00 | | Per Parcel |
| Floodplain Permit Application | | $2,000.00 | Time and Materials Charge |
| Floodplain Base Map Revision | $56.00 | | Per Lot |
| Floodplain Map Amendments | | $2,000.00 | Time and Materials Charge |
| **GRADING:** | | | |
| Plan review: | | | |
| $100,000 or less | | $3,000.00 | Time and Materials Charge Plus 3% of improvement value |
| $100,001 or more | | $4,000.00 | Time and Materials Charge Plus 1% of amount over $100,000 |
| Inspection: | | | |
| $100,000 or less | | $5,000.00 | Plus 5% of improvement value |
| $100,001 or more | | $6,000.00 | Time and Materials Charge Plus 4% of amount over $100,000 |
| Stock Pile Permit | | $3,000.00 | Time and Materials Charge |

| POLICE SERVICES | FIXED FEE | TIME & MATERIAL DEPOSIT | ADDITIONAL FEE OR DEPOSIT COMMENT |
|---|---|---|---|
| Abandoned Vehicle | | | No Charge |
| ABC Permit Letter | $50.00 | | |
| Accident Report - Property Damage Only | $12.00 | | |
| Accident Report - Injury (1-20/20+ / Extensive) | $12.00 | | |
| Photos to CD | $25.00 | | |
| Booking Fee | $564.00 | | |
| **Citation Sign-Off** | | | |
| Vehicle Inspection – Resident | | | No Charge |
| Vehicle Inspection – Non-resident | $38.98 | | |
| **Clearance Letter:** | | | |
| Fee for Resident | $15.00 | | |
| Fee for Non-Resident | $42.00 | | |
| **Concealed Weapons Fee:** | | | |
| Initial Fee (Plus State Fingerprinting Processing Fee) | $450.00 | | Plus Current DOJ Fees |
| Renewal Fee (Plus State Fingerprinting Processing Fee) | $75.00 | | Plus Current DOJ Fees |
| Crime Reports | $12.00 | | |
| DUI Emergency Response Cost Recovery | | | Actual cost for staff, equipment, lab work. |
| False Alarm Response (more than 2 in 30 days) | $100.00 | | After 2 alarms in 30 days |
| Livescan Applicant Fingerprinting | $21.00 | | Plus Current DOJ Fees |
| **Gun Storage Services pursuant to Court Order:** | | | |
| Administrative Processing Fee Per Incident | $12.00 | | |
| Storage Fee (per month or any fraction thereof) per Gun | $5.00 | | |
| Parties and Nuisances – Subsequent Calls for Service | | | Hourly Charge; $415 minimum |
| Review of Local Criminal History | $44.00 | | |
| Rotational Tow Application Fees | $350.00 | | |
| Special Event Permit –No ABC Liquor License Letter Required | $411.00 | | |
| Special Event – Non-Profit Organization (with or without ABC letter) | $411.00 | | |
| Second Hand Dealer License/Pawns | $165.00 | | Plus Current DOJ Fees |
| Solicitor/Peddler Permits | $245.00 | | |
| Subpoena Duces Tecum (Per EC 1563) | $24 per hour plus $.10 per page | | Per EC 1563 |
| Production of Documents Only | $15.00 | | |
| Appearance Request (officer/records) | $275.00 | | |
| Vehicle Abatement | $492.00 | | |
| Vehicle Repossession Fee (VIN Verification charge individuals only) | $70.00 | | |
| Stored Vehicle Release – Recovered Stolen Vehicle | | | No Charge |
| Stored Vehicle Release | $100 | | |

## SCHEDULE OF CONSTRUCTION PERMIT FEES

### BUILDING FEES

| TOTAL VALUATION | FEE |
|---|---|
| $1.00 to $2,000.00 | $69.25 |
| $2,001.00 to $25,000.00 | $69.25 for the first $2,000.00 plus $14.00 for each additional $1,000.00 or fraction thereof, to and including $25,000.000 |
| $25,001.00 to $50,000.00 | $391.25 for the first $25,000.00 plus $10.10 for each additional $1,000.00 or fraction thereof, to and including $50,000.00 |
| $50,001.00 to $100,000.00 | $643.75 for the first $50,000.00 plus $7.00 for each additional $1,000.00 or fraction thereof, to and including $100,000.00 |
| $100,000.00 to $500,000.00 | $993.75 for the first $100,000.00 plus $5.60 for each additional $1,000.00 or fraction thereof, to and including $500,000.00 |
| $500,001.00 to $1,000,000.00 | $3,233.75 for the first $500,000.00 plus $4.75 for each additional $1,000.00 or fraction thereof, to and including $1,000,000.00 |
| $1,000,001.00 and UP | $5,608.75 for the first $1,000,000.00 plus $3.65 for each additional $1,000.00 or fraction thereof |

| OTHER INSPECTION FEES | FIXED FEE | TIME & MATERIAL DEPOSIT | ADDITIONAL FEE OR DEPOSIT COMMENT |
|---|---|---|---|
| Inspections Outside of Normal Business Hours | $69.25 | | Per Hour (Minimum of 2 Hours) |
| RE-Inspection Fees Assessed Under Provisions of Section 305.8 | $69.25 | | Per Hour |
| Inspections for Which no Fee is Specifically Indicated | $69.25 | | Per Hour |
| Additional Plan Review Required by Changes, Additions & Revisions to Plans | $78.50 | | Per Hour |
| For Use Outside Consultants for Plan Checking & Inspections or Both | | | Time and Materials Charge |
| Energy Compliance Fees | | | 25% of the Building Fee Applicable to all Structures with Heaters or any Conditioned Space |
| Access Compliance Fees | | | 25% of the Building Fee Applicable on all Buildings Except Residential Use Buildings with Fewer Than four (4) Dwelling Units |

| BUILDING VALUATION DATA SUPPLEMENT | | | ADDITIONAL FEE OR DEPOSIT COMMENT |
|---|---|---|---|
| The work listed in this supplement shall be valued based on the gross square footage of the work, or where noted, as a lump sum. Where actual costs are higher, those costs shall be used for the valuation. | | | |
| Residential Addition | | | $ 94.80 Sq. Ft. |
| Residential Remodel (to existing floor area) | | | By Value |
| Residential Use Conversion from Garage | | | By Value |
| Sun room with 60% glazing, cabanas, other similar structures if conditioned space and Integrated with main Structure | | | $18.65 Sq. Ft. |
| Patio Cover | | | By Value |
| Deck | | | $13.56 Sq.Ft. |
| Deck - With Cover | | | By Value |
| Retaining Wall | | | By Value |
| Freestanding Fence | | | By Value |
| Portable Doughboy Pools or Portable Spa (Electrical Only) | | | $156.16 Includes Applicable City Fees |
| Portable Doughboy Pools or Portable Spa With Gazebo or Decking | | | By Value |
| Remodel or Tenant Improvement Work in Commercial Buildings | | | By Value |
| Re-Roofing-Single Family or Duplex | | | $178.80 Includes Applicable City Fees |
| Commercial Building Re-Roof | | | By Value |
| Pre Fabricated Home on Permanent Foundation (Use minimum Electrical, Mechanical, and Plumbing Inspection Fees) | | | By Value |
| Moved Building | | | By Value |

| ELECTRICAL INSPECTION FEES | | | ADDITIONAL FEE OR DEPOSIT COMMENT |
|---|---|---|---|
| New Dwelling | | | 15% of the Building Permit Fee |
| Addition or Alteration to Dwelling Unit | | | 20% of the Building Permit Fee, $69.25 minimum |
| New Commercial Building | | | 25% of the Building Permit Fee, $69.25 minimum |
| Shell Building | | | 25% of the Building Permit Fee, $69.25 minimum |
| Commercial Alterations & Tenant Improvements | | | 20% of the Building Permit Fee, $69.25 minimum |
| Electrical Permit | | | $69.25 minimum. See * note. |
| *An electrical permit is required for all electrical work regulated by the Electrical Code. Fees for work not included in items 1-5 above shall be calculated using Building Fees and based on the contract amount of the electrical work. Where such electrical work is performed in conjunction with a building permit, the fee may be added to that permit, and a separate electrical permit is required. | | | |
| **MECHANICAL INSPECTION FEES** | | | **ADDITIONAL FEE OR DEPOSIT COMMENT** |
| New Dwelling | | | 10% of the Building Permit Fee |
| Addition or Alteration to Dwelling Unit | | | 15% of the Building Permit Fee, $69.25 minimum |
| New Commercial Building | | | 15% of the Building Permit Fee, $69.25 minimum |
| Shell Building | | | 15% of the Building Permit Fee, $69.25 minimum |
| Commercial Alterations & Tenant Improvements | | | 10% of the Building Permit Fee, $69.25 minimum |
| Mechanical Permit | | | $69 25 minimum. See * note below |
| *A mechanical permit is required for all mechanical work regulated by the Mechanical Code. Fees for work not included in Items 1-5 above shall be calculated using Building Fees and based on the contract amount of the mechanical work. Where such mechanical work is performed in conjunction a building permit, the fee may be added to that permit, and a separate mechanical permit is not required. | | | |
| **PLUMBING INSPECTION FEES** | | | **ADDITIONAL FEE OR DEPOSIT COMMENT** |
| New Dwelling | | | 15% of the Building Permit Fee |
| Addition or Alteration to Dwelling Unit | | | 20% of the Building Permit Fee, $69.25 minimum |
| New Commercial Building | | | 20% of the Building Permit Fee, $69.25 minimum |
| Shell Building | | | 20% of the Building Permit Fee, $69.25 minimum |
| Commercial Alterations & Tenant Improvements | | | 15% of the Building Permit Fee, $69.25 minimum |
| Plumbing Permit | | | $69 25 minimum. See * note below |
| * A plumbing permit is required for all plumbing work regulated by the Plumbing Code. Fees for work not included in Items 1-5 above shall be calculated using Building Fees and based on the contract amount of the plumbing work. Where such plumbing work is performed in conjunction a building permit, the fee may be added to that permit, and a separate plumbing permit is not required. | | | |
| **MISCELLANEOUS FEES** | **FIXED FEE** | | **ADDITIONAL FEE OR DEPOSIT COMMENT** |
| Re inspections (When return trips to the site by an inspector are necessary) | $69.25 | | Per Hour |
| Owner-requested inspection of an existing building | $69.25/$207.75 | | Per Hour with a 1 Hour Minimum. If Overtime is required the rate shall be $207.75 per hour with a 1 Hour Minimum |
| Inspection for Change of Occupancy | $80.00 | | Per Hour with a 1 Hour Minimum |
| Investigation of work without permit. When a Stop Work Notice is issued for work being performed without permits or performed beyond the scope of existing permits, a special investigation and inspection shall be made before permits may be issued for such work. | | | An investigation fee shall be charged equal to two times the amount of all permits fees required by this ordinance, with a minimum of $125.00. The fee is additive to the permit fees. This provision shall not apply to emergency work when it can be proven to the satisfaction of Building Official that such work was urgently necessary, that it was not practical to obtain a permit before the work was commenced, and that a permit was applied for as soon as practical. |

| PERMIT PROCESSING AND ISSUANCE PROGRAM | FIXED FEE | | ADDITIONAL FEE OR DEPOSIT COMMENT |
|---|---|---|---|
| **Plan Review**-Applicable when plans are required beyond a plot or site plan. | | | 65% of Building Permit Fee |
| **Permit Review and Processing**<br>Applicable when review for compliance can be determined through a plot or site plan, or references to a master plan previously reviewed and approved by the department. | | | 25% of Building Permit Fee. (Subsequent houses also). $78.50 per hour minimum. |
| **Additional Processing**<br>Applicable when additional plan review is required due to: 1) incomplete or unacceptable follow-through by applicant on deficiencies found in the initial plan review; 2) significant revisions submitted after plan review is well underway; or 3) revisions submitted during construction to reflect field changes. | $78.50 | | Per Hour |
| **Plan Scanning:** | | | |
| 8 1/2 x 11 | $0.13 | | Per Sheet |
| 11 x 17 to 12 x 18 | $0.25 | | Per Sheet |
| 17 x 22 to 18 x 24 | $0.81 | | Per Sheet |
| 24 x 34 to 24 x 36 | $1.62 | | Per Sheet |
| 36 x 44 to 36 x 48 | $2.97 | | Per Sheet |
| Large Format Scanning | $0.27 | | Per Square Foot |
| | | | |
| **CONSTRUCTION INSPECTION PROGRAM** | | | **ADDITIONAL FEE OR DEPOSIT COMMENT** |
| Building Permit | | | The Building Permit fee shall be as set forth in the Fee Schedule (Table No. 1-A) |
| Energy Compliance | | | 25% of Building Permit or processing fees. Applicable on all structures with heated or air conditioned space. |
| Accessibility | | | 25% of Building Permit or processing fees. Applicable on all building permits except residential use buildings with fewer than 4 dwelling units. |
| State of California Earthquake Assessment Fee | | | Residential: .10 per each $1,000 building Valuation<br>Commercial: .21 per each $1,000 building Valuation |
| | | | |
| **ADMINISTRATION AND OVERHEAD COSTS; ACTUAL COSTS** | | | |

City of Oakley administrative and overhead costs are equal to 27% of all Construction Permit Fees. The City's administrative and overhead costs shall be included in the total amount charged for all Building Inspection Department services in a manner prescribed by the Building Inspection Department.

Actual costs include the City's administrative and overhead costs.

**Section 2: VALUATION**

The determination of value or valuation under any provisions of the City Building Code shall be made by the Building Official. The total valuation to be used with the Fee Schedule shall be determined using the Building Valuation Data contained in the Building Standards magazine, published by the International Conference of Building Officials, Whittier, California. The data in the March-April issue of each year shall be used for the ensuing fiscal year. Work not listed in the Building Valuation Data shall be valued per the Building Valuation Data Supplement.

The valuation to be used in computing Construction Permit Fees shall be the total valuation of all construction work for which the permit is issued, as well as all finish work, painting, roofing, mechanical, electrical, plumbing, beating, air conditioning, elevators, fire extinguishing systems, and any other permanently installed equipment.

For industrial facilities, the value of process equipment and heavy machinery supported by the structure or by its own foundation shall be included. Contractor overhead and profit shall be included.

The valuation of grading, retaining walls, paving and other site work, and any demolition work, shall be included unless such work was included in other permits issued by the Building Inspection Department.

The valuation data is used to establish consistent criteria for calculating permit fees, and the calculated total valuation does not necessarily reflect actual costs. The County Assessor does not rely on these costs, but performs independent assessments of the permitted work.

| CODE ENFORCEMENT | FIXED FEE | | ADDITIONAL FEE OR DEPOSIT COMMENT |
|---|---|---|---|
| Annual Rental Registration & Inspection fee | $108.00 | | Fee for property not inhabited by tenants or vacant and not listed for rent on January 1st of each calendar year will be prorated on a monthly basis |
| Re-Inspection Fee | $112.00 | | |
| **Non Compliance for Failure to Register & Pay Fee/Code Enforcement Violations:** | | | |
| First Citation | $100.00 | | |
| Second Citation | $200.00 | | |
| Third Citation | $500.00 | | |
| **Administrative Penalty Citation for Building and Safety Codes** | | | |
| First Citation | $130.00 | | |
| Second Violation of the Same Ordinance Within One Year | $700.00 | | |
| Each Additional Violation of the Same Year Within One Year of First | $1,300.00 | | |
| Rental Property Owners failing to register and pay the annual fee by January 31st of the calendar year or within 30 days of renting the property will be issued an Administrative Citation.<br>Administrative Citations are in addition to the Rental Registration and Inspection Fee and any other citations issued for Building and/or Code Enforcement violations. | | | |

## PARKS & RECREATION

**User Groups:**

Group 1: Oakley Resident, Oakley Based Businesses and Oakley Based Non Profits
Group 2: Non-Resident and Non-Oakley Based Non Profits
Group 3: Community Partner
Group 4: Private Business, Group or Organizations

### PICNIC AREA AND SPORTS FIELDS

| FACILITIES | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---|---|---|---|---|
| Sports Area | $7.00 per hour | $17.00 per hour | As Outlined in Individual Agreement | $40.00 per hour |
| Creekside and Nunn Wilson Park Group Picnic Areas (up to 100 people) | $100.00 per day | $125.00 per day | As Outlined in Individual Agreement | $200.00 per day |
| Crockett and Summer Lake Park Group Picnic Areas (under 50 people) | $75.00 per day | $100.00 per day | As Outlined in Individual Agreement | $150.00 per day |

A $150 damage deposit is due at the time of application to reserve any park or sports area.

### RECREATION CENTER FEES

| FACILITIES | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---|---|---|---|---|
| Oakley Recreation Building Studio 1 Only available for parties with 50 or less people Monday -Thursday | $55.00 per day | $75.00 per day | As Outlined in Individual Agreement | $100.00 per day |
| Recreation Center Great Room Add on Kitchen to full room rental or side A for $100 | M-Th $150.00 per day<br>F-Su $225.00 per day | M-TH $175.00 per day<br>F-Su $250.00 per day | As Outlined in Individual Agreement | M-TH $225.00 per day<br>F-Su $300.00 per day |
| or side A for $100 | M-Th $75.00 per day | F-Su $135.00 per day | As Outlined in Individual Agreement | F-Su $150.00 per day |
| Kitchen Available Monday - Friday for $50 per hour | | | | |

Recreation Center Deposit $250, insurance required on all rentals. *Large events and events serving alcohol will require $500 deposit and security

### CIVIC CENTER PARK STAGE & AMPITHEATER

| | | | |
|---|---|---|---|
| Temporary Use Permit | | | $100 application fee + $500 deposit |
| Special Event/Road Closure Permit (if required) | | | $50 application fee* |
| Park Rental Fee | | | $250 per day |

*Additional fees may apply based on the nature of your event

## MT. DIABLO RESOURCE RECOVERY /SANITATION AND REFUSE FEES

| RESIDENTIAL CUSTOMERS | MONTHLY FEE | | |
|---|---|---|---|
| 32 Gallon Trash Service | $49.64 | | |
| 64 Gallon Trash Service | $69.42 | | |
| 96 Gallon Trash Service | $78.76 | | |
| 32 Gallon Senior-Low Income Trash Service | $42.14 | | |
| Additional Recycling Container | $15.59 | | |
| Additional Green Waste Container | $15.59 | | |

### MISCELLANEOUS FEES AND CHARGES

| RESIDENTIAL CUSTOMERS | FEE | COMMERCIAL CUSTOMERS | FEE |
|---|---|---|---|
| Account reinstatement Fee | $20.00 | Account reinstatement Fee | $75.00 |
| Go-Back Service Fee | $35.00 | Go-Back Service Fee | $35.00 |
| Same Day Service Fee | $55.00 | Same Day Service Fee | |
| Admin Fee (Payment w/live Rep) | $2.00 | Cart Service (per cart) | $40.00 |
| Overloaded/Contaminated Container | | Bin Service (per bin) | $115.00 |
| 1) First offense - Phone call | - | Admin Fee (Payment w/live Rep) | $2.00 |
| 2) Second offense - Phone call and warning letter | - | Overloaded/Contaminated Container | |
| 3) Third offense - Letter and fee | $50.00 | 1) First offense - Phone call | - |
| | | 2) Second offense - Phone call and warning letter | - |
| | | 3) Third offense - Letter and fee | - |
| | | a) Cart Fee | $75.00 |
| | | b) Bin Fee | $150.00 |

STAFF REPORT

OAKLEY
CALIFORNIA

**DATE:** July 11, 2023

**TO:** Joshua McMurray, City Manager

**FROM:** Paul Beard, Chief of Police

**SUBJECT:** Annual Report of Military Equipment Usage- 2022

Approved and Forwarded to the City Council

## Background and Analysis

On January 1, 2022, AB 481, which governs the funding, acquisition, and use of military equipment by law enforcement agencies in the state of California, became effective. AB 481 specifically requires all law enforcement agencies in California to obtain the approval of their respective governing bodies before funding, acquiring, or using equipment now defined under AB 481 as “military equipment.” The Oakley Police Department adheres to AB 481 via Oakley Police Policy 707.

AB481 requires, on an annual basis, the police department to seek and obtain City Council approval for future acquisition and funding of new military equipment and provide City Council and the public, a report outlining how the military equipment was used, to ensure the police department is adhering to our policy and the city ordinance.

An annual report has been prepared to share with the City Council, and the general public. The annual report summarizes the military equipment used by the Oakley Police Department, the inventory of military equipment owned by the Oakley Police Department, purchases of military equipment by the Oakley Police Department and training events using military equipment. The annual report also reports any community concerns regarding military equipment, any critical incidents where military equipment was used and any projected purchases of military equipment.

Within 30 days of submitting and publicly releasing the annual military equipment report, the law enforcement agency must hold “at least one well-publicized and conveniently located community engagement meeting, at which the general public may discuss and ask questions regarding the annual military equipment report” and the funding/use of equipment. This community engagement meeting is scheduled for July 11, 2023 at the City of Oakley City Hall Council Chambers, 3231 Main Street, Oakley, Ca. 94561. The meeting will start at 6:30PM.

## Consistency with the Oakley Strategic Plan 27+

This item is consistent with the Strategic Plan 27+ Community Health & Safety Goal.

## Fiscal Impact

There is no fiscal impact.

## Staff Recommendation

The Oakley City Council should provide comments and input to staff on the 2022 Annual Military Equipment Report.

## Attachments

1. Oakley Police Department 2022 Annual Military Equipment Report
2. Oakley Police Department Policies regarding Military Equipment

# OAKLEY POLICE DEPARTMENT

# 2022 ANNUAL MILITARY EQUIPMENT REPORT

**CHIEF PAUL BEARD**

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# INTRODUCTION

On September 30, 2021, the Governor of the State of California approved Assembly Bill 481 (codified as Chapter 12.8 of the California Government Code) requiring law enforcement agencies such as the Oakley Police Department to have a military use policy approved by the City Council prior to reques?ng, seeking funding, acquiring, or using military equipment. Assembly Bill 481 allows the governing body to approve the policy within its jurisdic?on only if it determines that the military equipment meets Specified standards.

On August 9, 2022, the City of Oakley City Council approved Ordinance 10-22, which approved Oakley Police Department Policy #707: Military Equipment.

As required by Assembly Bill 481 and the Ordinance, annually the Oakley Police Department must prepare a report on the use of each type of military equipment approved in the Policy over the last year. Subsequently, the City Council must then review the Ordinance, Policy, and Annual Report, and determine whether the Department's use of military equipment in the past year complied with the Policy, and whether to con?nue the Ordinance and Policy, take ac?on (by ordinance) to modify the Policy or repeal the Ordinance.

As set forth in the Policy, the Oakley Police Department retains and employs limited military equipment to safeguard its community. Oakley Police Officers, cer?fied instruc?onal staff, and specialized units receive training throughout the year on the use of military equipment approved under the Policy.

This Annual Report outlines the Oakley Police Department's military equipment inventory and usage, community complaints over use of military equipment, and internal audits from January 1, 2022 through December 31, 2022. The Oakley Police Department will submit its Military Equipment Annual Report to City Council a?er December 31st of every year in compliance with AB 481.

# DEFINITIONS

Defini?ons of Military Equipment established by California Government Code §7070 (the Oakley Police Department u?lizes a limited number of the resources listed, and **underlined** below):

Military equipment includes but is not limited to the following types of equipment:

**• Unmanned, remotely piloted, powered aerial or ground vehicles**

• Mine-resistant ambush-protected (MRAP) vehicles or armored personnel carriers

• High mobility mul?purpose wheeled vehicles (HMMWV), two-and-one-half-ton trucks, five-ton trucks, or wheeled vehicles that have a breaching or entry apparatus a?ached

• Tracked armored vehicles that provide ballis?c protec?on to their occupants

• Command and control vehicles that are either built or modified to facilitate the opera?onal control and direc?on of public safety units

• Weaponized aircra? , vessels, or vehicles or any kind

• Ba?ering rams, slugs, and breaching apparatuses that are explosive in nature. This does not include a handheld, one-person ram

• Firearms and ammuni?on of .50 caliber or greater, excluding standard-issue shotguns and standard-issue shotgun ammuni?on

**• Specialized firearms and ammuni?on of less than .50 caliber, including firearms and accessories iden?fied as assault weapons in Penal Code §30510 and Penal Code §30515, with the excep?on of standard-issue firearms**

• Any firearm or firearm accessory that is designed to launch explosive projec?les

• Noise-flash diversionary devices and explosive breaching tools

- Muni?ons containing tear gas or OC, excluding standard, service-issued handheld pepper spray

- Taser Shockwave, microwave weapons, water cannons, and long-range acous?c devices (LRADs)

- **<u>Kine?c energy weapons and muni?ons (e.g. 40MM launcher, bean bag shotgun, foam ?pped projec?les)</u>**

- Any other equipment as determined by a governing body or a state agency to require addi?onal oversight.

# SUMMARY OF OAKLEY POLICE MILITARY EQUIPMENT

**Overview:**

In regards to the usage of military equipment, as defined by the California Penal Code, the Oakley Police Department currently only uses rifles, 40mm launchers, unmanned aerial vehicles (UAV's) and the support equipment associated with each one of these items.

## Specialized Firearms and Ammuni?on

**Authorized Use:**

Only members that are POST cer?fied are authorized to use a rifle or 40mm launcher.

**Purpose:**

Rifles are to be used to address threats with more precision and/or greater distances than a handgun. The rifles have a great degree of accuracy over longer distances than handguns. The rifles are used in tac?cal and higher risk situa?ons. The use of rifles is considered deadly force.

40mm launchers can fire several forms of less lethal muni?ons. The Oakley Police Department only uses the Defense Technologies Exact Impact, kine?c energy round. The Defense Technologies Exact Impact, kine?c energy round is a high speed, lightweight projec?le consis?ng of a plas?c body and a crushable foam nose. It is designed to be used against aggressive and non-compliant people at distances between 5-40 yards.

**Training:**

Prior to the use of the specialized firearms listed within this sec?on, all officers must be cer?fied by POST instructors in the maintenance and opera?on of such firearms.

**Legal and Procedural Rules:**

Use of specialized firearms and ammuni?on is established under Oakley Police policies #300, #303, #306, and #707. It is the policy of this Department to u?lize specialized firearms only for official law enforcement purposes and pursuant to State and Federal law regarding the use of force.

# CURRENT INVENTORY OF SPECIALIZED FIREARMS AND AMMUNITION:

**Oakley Police Department inventory of Tac?cal rifles, chambered in .223/5.56x45mm**

Our rifles are equipped with flashlights, electronic sigh?ng systems and collapsible stocks. The costs associated with all of this support equipment is factored in below:

| RIFLES | QUANTITY | COST |
|---|---|---|
| COLT AR-15 | 16 | $41,664 ($2,604 ea.) |
| SIG 516 (AR-15 style) | 15 | $39,060 ($2,604 ea.) |
| BUSHMASTER AR-15 | 1 | $2,604 ($2,604 ea.) |

**40mm launchers**

Firearms that are capable of firing less lethal 40mm projec?les.

| LAUNCHER | TYPE | QUANTITY | COST |
|---|---|---|---|
| LEWIS, MACHINE & TOOL CO. | Single round capacity | 5 | $5,500 ($1,100 ea.) |
| DEFENSE TECHNOLOGIES | Mul?ple round capacity | 2 | $4,200 ($2,100 ea.) |

**Ammuni?on**

| BRAND | CALIBER | TYPE | QUANTITY | COST |
|---|---|---|---|---|
| Winchester | 5.56x45mm | 55 gr. FMJ | 19,000 | $8,322 |
| Winchester | 5.56x45mm | 64 gr. SP | 6,000 | $4,608 |
| Defense Technologies | 40mm | Exact Impact Kine?c Energy Muni?on | 65 | $1,492 |

**Expected Life Span:**

Colt rifles- 15 years

SIG rifles- 15 years

Bushmaster Rifle- 15 years

Lewis, Machine & Tool 40mm launchers- 15+ years

Defense Technology 40mm launchers- 15 + years

Winchester 5.56x45mm 55 grain FMJ ammuni?on- No expira?on

Winchester 223 Remington 64 grain SP ammuni?on – No expira?on

Defense Technology 40mm Direct Impact Kine?c Muni?on- 5 years

**Fiscal Impact:**

Annual maintenance is approximately $50 for each rifle.

# Unmanned Aerial Vehicles

**Descrip?on, quan?ty, capabili?es, and purchase cost:**

The Unmanned Aerial Vehicle (UAV) is a ba?ery powered, remote operated flying device capable of live feeding, and recording, video and audio files. Flight ?me of approximately 30-45 minutes per ba?ery, depending on weather and flight condi?ons.

**UAV inventory**

| MAKE | MODEL | QUANTITY | AGE | ESTIMATED LIFESPAN | COST |
|---|---|---|---|---|---|
| DJI | Mavic 2 Zoom | 1 | 4 Years | 5 Years | $1,249 |
| DJI | Mavic Enterprise Dual | 1 | 4 Years | 5 Years | $2,700 |
| DJI | Mavic 3 Thermal | 1 | <1 Year | 5 Years | $5,748 |
| DJI | Mavic Mini 3 Pro | 2 | <1 Year | 5 Years | $1,818 ($909 ea.) |

**Purpose:**

To be deployed when its technological advantages view would assist officers or incident commanders with the following situa?ons, which include but are not limited to:

- Major collision inves?ga?ons
- Emergency Life Threatening Situa?ons
- Search for missing persons
- Natural disaster management
- Crime scene photography
- SWAT, tac?cal or other public safety and life preserva?on missions.

- In response to specific requests from local, state or federal fire authori?es for fire response and/or preven?on.

**Authorized Use:**

Only assigned operators who have completed the required training shall be permi?ed to operate Oakley Police Department's UAV's approved missions.

**Fiscal Impact:**

Annual maintenance cost of approximately $0-$1,500.

**Training:**

All Department UAV operators are licensed by the Federal Avia?on Administra?on for UAV opera?on. UAV operators train monthly in the use of the UAV's.

**Legal and Procedural Rules:**

Use is established under the FAA Regula?on 14 CFR Part 107.

# Equipment Purchase and Training Use

**2022 Purchases**

| Military Equipment | Quan?ty | Cost | Date of Purchase |
|---|---|---|---|
| Winchester 5.56x45mm 55 gr. FMJ ammuni?on | 2,000 rounds | $876 | 4/26/2022 |
| Winchester 5.56x45mm 64 gr. SP ammuni?on | 1,000 rounds | $768 | 4/26/2022 |

**2022 Training/ Military Equipment U?lized**

| Training | Military Equipment | Quan?ty | Date |
|---|---|---|---|
| Firearm qualifica?ons | Patrol rifle | 180 rounds | February 4, 2022 |
| Drone training | Drone | NA | October 4, 2022 |
| Drone training | Drone | NA | October 11, 2022 |
| Drone training | Drone | NA | October 19, 2022 |
| Firearm 4 hour training | Patrol rifle | 700 | November 10, 2022 |
| Firearm 4 hour training | Patrol rifle | 700 | November 11, 2022 |

**2022 Cri?cal Incident/ Military Equipment U?lized**

| Case# | Date | Equipment Used | Reason |
|---|---|---|---|
| Outside assist | 1-5-2022 | Drone | Missing person |
| 22-176 | 2-23-2022 | Drone | Missing person |
| 22-176 | 2-26-2022 | Drone | Missing person |
| 22-1844 | 8-26-2022 | Rifle, Drone | Barricaded assault suspect |

# Community Concerns and Complaints

In some instances, the possession and use of military equipment may cause ques?ons and/or concerns for members of the community. It is vitally important that community members' ques?ons and/or complaints regarding Oakley Police Department's possession and use of military equipment are addressed.

The Oakley Police Department is commi?ed to full and fair inves?ga?ons of community complaints. As such, the Department has sound internal procedures for thorough and impar?al inves?ga?ons of community complaints. Resolving complaints in a fair, impar?al, and expedi?ous manner will ensure the consistent high level of integrity and efficiency maintained by the Department.

In June of 2022, the Oakley Police Department published its Military Equipment policy on its website. Community concerns and complaints can be made via the Department's ?pline- opd?ps@ci.oakley.ca.us, in-person at the police department or in the field during police contacts, telephone, emails and social media.

**2022 Community Concerns, Complaints & PD Internal Inves?ga?ons Related to Military Equipment Use**

| Community Concerns | Complaints | PD Internal Inves?ga?ons |
|---|---|---|
| 0 | 0 | 0 |

# Internal Inventory & Audit of Military Equipment

Per Oakley Police Department policy 707.3 (c) the Department's military equipment coordinator, designated as the Opera?ons Division Commander, is required to complete an internal inventory of all military equipment within the possession of the Department at least once annually. An audit of the inventory and use of military equipment was completed on May 23, 2023 by the Opera?ons Division Commander and staff.

This audit focused on the use of military equipment during cri?cal incidents involving Department personnel. The audit confirmed that Department personnel were found to be in compliance with Policy #707 in the use of military equipment. The Department has added addi?onal unmanned aerial vehicles since the date of the audit (see **Projected Military Equipment Acquisi?on (2023)**). All current military equipment inventory was found to be in good shape and working order.

# Projected Military Equipment Acquisi?on (2023)

For 2023 (January- December), the Oakley Police Department projects the purchase of addi?onal Military Equipment to consist of SIG 516 (AR-15 style), or Mil-Spec equivalent semi-automa?c rifles, 5.56x45mm ammuni?on and Defense Technologies 40mm Exact Impact muni?ons.

The Oakley Police Department staffing has grown significantly in 2022/2023. By January 2024 it is expected the Oakley Police Department will have 41 sworn officers from the Chief down to the most junior officer. The purchase of the addi?onal semi-automa?c rifles is necessary in order to make sure every sworn officer has a rifle assigned to him/her.

The semi-automa?c rifles are equipped with electronic red dot sigh?ng systems. Red dot sigh?ng systems tend to make target acquisi?on easier allowing the individual officers to be more proficient when opera?ng the rifle.

The reason we do not use “pool” rifles (smaller number of rifles used by several officers) is because due to each officer has unique and individual human anatomy. Pool rifles cannot be relied upon to be correctly sighted/aligned for every officer. In order to make sure the rifles, and the sigh?ng systems, are properly “fi?ed” to each individual officer we need to assign each officer with his/her own unique rifle.

The es?mated purchase price of new rifles is approximately $23,436.00. I an?cipate we will spend approximately $4,070 on 5.56x45mm ammuni?on and I further an?cipate spending approximately $673 on Defense Technologies 40mm Exact Impact muni?ons.

Our Unmanned Aerial Vehicle fleet was aging and it was suffering from opera?onal damages, it was also lacking technology that allows them to interface with a 3D scanner we purchased last year. It was determined we needed a dras?c upgrade of our Unmanned Aerial Vehicle fleet. On June 6, 2023 we purchased one (1) DJI Mavic 3 thermal drone and two (2) DJI Mini Pro drones.

The opera?ng costs of this equipment, which includes acquisi?on, personnel ?me, training facili?es, transporta?on/storage of equipment, equipment upgrades and

other ongoing costs is budgeted within the Department's approved opera?ng budget for FY2022-2023 and FY2023-2024.

**An?cipated 2023 Military Equipment Acquisi?ons**

| Military Equipment | Projected Purchase Quan?ty | Projected Purchase Price |
|---|---|---|
| SIG/or Mil-Spec Equivalent semi-automa?c rifles, chambered in 5.56x45mm | 9 | $23,436 |
| Winchester 5.56x45mm 64 gr. SP ammuni?on | 5,000 rounds | $4,070 |
| Defense Technologies 40mm Exact Impact Muni?on | 25 | $673 |
| DJI Mavic 3 Thermal Drone | 1 | $5,748 |
| DJI Mavic Mini 3 Pro Drone | 2 | $1,818 |

## An?cipated “re?rement” of Military Equipment

The Oakley Police Department has been deploying several rifles that were assigned to the Oakley Police Department when the City of Oakley contracted police services with the Contra Costa County Office of the Sheriff. Those rifles were brought online between 2004-2009. It will be my intent to replace those rifles during FY2024-2025. Those rifles number approximately six (6).

The Oakley Police Department has been running a DJI Mavic 2 as part of its Unmanned Aerial Vehicle fleet. This drone has been damaged and it is lacking technology that would allow it to interface with our 3D scanner. It is my intent to re?re this Unmanned Aerial Vehicle during 2023.

## Conclusion

This Annual Military Equipment Report reaffirms the Oakley Police Department’s commitment to providing transparency and informa?on to our communi?es and elected officials in addi?on to ensuring compliance with California State law. The equipment, resources, and training outlined in this report allow Oakley Police Officers to be?er serve and protect Oakley, enhance the safety of officers and the community and bring cri?cal incidents to a safe resolu?on.

# Military Equipment

## 707.1 PURPOSE AND SCOPE

The purpose of this policy is to provide guidelines for the approval, acquisition, and reporting requirements of military equipment (Government Code § 7070; Government Code § 7071; Government Code § 7072).

### 707.1.1 DEFINITIONS

Definitions related to this policy include (Government Code § 7070):

**Governing body** – The elected or appointed body that oversees the Department.

**Military equipment** – Includes but is not limited to the following:

- Unmanned, remotely piloted, powered aerial or ground vehicles.
- Mine-resistant ambush-protected (MRAP) vehicles or armored personnel carriers.
- High mobility multipurpose wheeled vehicles (HMMWV), two-and-one-half-ton trucks, five-ton trucks, or wheeled vehicles that have a breaching or entry apparatus attached.
- Tracked armored vehicles that provide ballistic protection to their occupants.
- Command and control vehicles that are either built or modified to facilitate the operational control and direction of public safety units.
- Weaponized aircraft, vessels, or vehicles of any kind.
- Battering rams, slugs, and breaching apparatuses that are explosive in nature. This does not include a handheld, one-person ram.
- Firearms and ammunition of .50 caliber or greater, excluding standard-issue shotguns and standard-issue shotgun ammunition.
- Specialized firearms and ammunition of less than .50 caliber, including firearms and accessories identified as assault weapons in Penal Code § 30510 and Penal Code § 30515, with the exception of standard-issue firearms.
- Any firearm or firearm accessory that is designed to launch explosive projectiles.
- Noise-flash diversionary devices and explosive breaching tools.
- Munitions containing tear gas or OC, excluding standard, service-issued handheld pepper spray.
- TASER® Shockwave, microwave weapons, water cannons, and long-range acoustic devices (LRADs).
- Kinetic energy weapons and munitions.
- Any other equipment as determined by a governing body or a state agency to require additional oversight.

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### 707.2 POLICY

It is the policy of the Oakley Police Department that members of this department comply with the provisions of Government Code § 7071 with respect to military equipment.

### 707.3 MILITARY EQUIPMENT COORDINATOR

The Chief of Police should designate a member of this department to act as the military equipment coordinator. The responsibilities of the military equipment coordinator include but are not limited to:

(a) Acting as liaison to the governing body for matters related to the requirements of this policy.

(b) Identifying department equipment that qualifies as military equipment in the current possession of the Department, or the equipment the Department intends to acquire that requires approval by the governing body.

(c) Conducting an inventory of all military equipment at least annually.

(d) Collaborating with any allied agency that may use military equipment within the jurisdiction of Oakley Police Department (Government Code § 7071).

(e) Preparing for, scheduling, and coordinating the annual community engagement meeting to include:

1. Publicizing the details of the meeting.
2. Preparing for public questions regarding the department's funding, acquisition, and use of equipment.

(f) Preparing the annual military equipment report for submission to the Chief of Police and ensuring that the report is made available on the department website (Government Code § 7072).

(g) Establishing the procedure for a person to register a complaint or concern, or how that person may submit a question about the use of a type of military equipment, and how the Department will respond in a timely manner.

### 707.4 MILITARY EQUIPMENT INVENTORY

The following constitutes a list of qualifying equipment for the Department, this list is not meant to imply the Oakley Police Department owns/uses each type of the following equipment, but the Oakley Police Department may take into possession any of the listed types of equipment as certain needs arise and by authority of the Chief of Police:

- Unmanned, remotely piloted, powered aerial or ground vehicles.
- Firearms and ammunition of .50 caliber or greater, excluding standard-issue shotguns and standard-issue shotgun ammunition.
- Specialized firearms and ammunition of less than .50 caliber, including firearms and accessories identified as assault weapons in Penal Code § 30510 and Penal Code § 30515, with the exception of standard-issue firearms.
- Any firearm or firearm accessory that is designed to launch explosive projectiles.

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- Noise-flash diversionary devices and explosive breaching tools.
- Munitions containing tear gas or OC, excluding standard, service-issued handheld pepper spray.
- TASER® Shockwave, microwave weapons, water cannons, and long-range acoustic devices (LRADs).
- Kinetic energy weapons and munitions.
- Any other equipment as determined by a governing body or a state agency to require additional oversight.

## 707.5 APPROVAL

The Chief of Police or the authorized designee shall obtain approval from the governing body by way of an ordinance adopting the military equipment policy. As part of the approval process, the Chief of Police or the authorized designee shall ensure the proposed military equipment policy is submitted to the governing body and is available on the department website at least 30 days prior to any public hearing concerning the military equipment at issue (Government Code § 7071). The military equipment policy must be approved by the governing body prior to engaging in any of the following (Government Code § 7071):

(a) Requesting military equipment made available pursuant to 10 USC § 2576a.

(b) Seeking funds for military equipment, including but not limited to applying for a grant, soliciting or accepting private, local, state, or federal funds, in-kind donations, or other donations or transfers.

(c) Acquiring military equipment either permanently or temporarily, including by borrowing or leasing.

(d) Collaborating with another law enforcement agency in the deployment or other use of military equipment within the jurisdiction of this department.

(e) Using any new or existing military equipment for a purpose, in a manner, or by a person not previously approved by the governing body.

(f) Soliciting or responding to a proposal for, or entering into an agreement with, any other person or entity to seek funds for, apply to receive, acquire, use, or collaborate in the use of military equipment.

(g) Acquiring military equipment through any means not provided above.

## 707.6 COORDINATION WITH OTHER JURISDICTIONS

Military equipment should not be used by any other law enforcement agency or member in this jurisdiction unless the military equipment is approved for use in accordance with this policy.

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### 707.7 ANNUAL REPORT

Upon approval of a military equipment policy, the Chief of Police or the authorized designee should submit a military equipment report to the governing body for each type of military equipment approved within one year of approval, and annually thereafter for as long as the military equipment is available for use (Government Code § 7072).

The Chief of Police or the authorized designee should also make each annual military equipment report publicly available on the department website for as long as the military equipment is available for use. The report shall include all information required by Government Code § 7072 for the preceding calendar year for each type of military equipment in department inventory.

### 707.8 COMMUNITY ENGAGEMENT

Within 30 days of submitting and publicly releasing the annual report, the Department shall hold at least one well-publicized and conveniently located community engagement meeting, at which the Department should discuss the report and respond to public questions regarding the funding, acquisition, or use of military equipment.

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OAKLEY
CALIFORNIA

**DATE:** June 11, 2023

**TO:** City Council

Approved and Forwarded to the City Council

**FROM:** Joshua McMurray, City Manager

**SUBJECT:** Resolution authorizing the City Manager to execute a contract with Urban Field Studio for the Library and O'Hara Residential Projects Design and Economic Feasibility Analysis and appropriating American Rescue Plan Act funds to the project

## Background and Analysis

The City has been in the process of exploring the feasibility of a new downtown library. Baker Tilly has been hired as a consultant to help the City prepare an initial feasibility analysis which was presented to the City Council on January 24, 2023. The City Council directed Staff to focus on an option that would place high density, multi-family housing on the City block bound by O'Hara Avenue to the west, Acme Street to the north, 2nd Street to the east and Ruby Street to the south. The purpose of the housing component is to allow the City to utilize a Public Private Partnership (P3) model, which in this case would allow a developer to provide the City a public facility as part of a private development project. The new library would be located on the Civic Center campus, in the location where the current corp yard sits. This initial analysis was promising, and Staff has been working with Baker Tilly over the last several months to find a consultant team that can refine and validate the initial assumptions in the original analysis.

A Request for Proposals (RFP) was released on April 7, 2023. It generated interest and we held an informational Q&A session on April 27, 2023. It was clear after that information session, that the firms needed more time to address the economic consultant piece of the RFP and we decided to extend the submittal due date from May 12, 2023 to May 31, 2023. We ended up receiving a total of 2 proposals, one from Urban Field Studio and one from DAHLIN.

A team of several Staff members including the City Manager, Assistant City Manager, Community Development Director, Public Works Director/City Engineer and the Economic Development Analyst reviewed both proposals on their merits using the following categories:

- Qualifications
- Work Plan/Schedule
- Budget - Base
- Budget - Options

After the review, Urban Field Studio came out ahead of the DAHLIN Group, mainly due to the fact that Urban Field Studio is partnering with Economic Planning Systems for the economic component of the analysis and the DAHLIN Group did not include an economic consultant to partner with. The economic piece of the analysis is vitally critical to the overall work product and that aspect missing from one of the proposals was the determining factor.

The Urban Field Studio proposal also has several option tasks. Staff is recommending that we also include optional tasks 2 and 3, which brings the total cost of the project to $60,000. Optional task 2 would allow for a designed presentation to the City Council and optional task 3 will yield a concept design for the library portion of the project. We feel that a concept design for the residential component is premature at this point, and something that will be needed if this additional analysis yields positive results.

## Consistency with the Oakley Strategic Plan 27+

This item is consistent with the Strategic Plan 27+ Community and Economic Development Goal. Specifically, under the Strategic and Thoughtful Growth Objective:

> *Consider relocating the co-hosted City/ High School Library to a downtown location that can be a unifying location for Seniors, Youth, Veterans, and possible satellite location for County services.*

## Fiscal Impact

Approval of this resolution will accept the proposal and authorize the City Manager to execute an agreement with Urban Field Studio for a cost not to exceed $60,000. This includes the base proposal and optional tasks 2 and 3 (3 is for the library portion of the project). The funding for this project will be from American Rescue Plan Act funds.

## Staff Recommendation

Staff recommends that the City Council adopt the resolution authorizing the City Manager to execute an agreement with Urban Field Studio for the Library and O'Hara Residential Projects Design and Economic Feasibility Analysis and appropriating American Rescue Plan Act funds to the project.

## Attachments

1. Draft Resolution
2. RFP dated April 7, 2023
3. DAHLIN Proposal
4. Urban Field Studio Proposal
5. Urban Field Studio Agreement

**RESOLUTION NO. XX-23**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OAKLEY AUTHORIZE THE CITY MANAGER TO EXECUTE A CONTRACT WITH URBAN FIELD STUDIO FOR THE LIBRARY AND O'HARA RESIDENTIAL PROJECTS DESIGN AND ECONOMIC FEASIBILITY ANALYSIS AND APPROPRIATING AMERICAN RESCUE PLAN ACT FUNDS TO THE PROJECT**

**WHEREAS,** the City wishes to hire a consultant team to help further analyze the Library and O'Hara Residential Projects; and

**WHEREAS,** the City issued an Request for Proposals (RFP) on April 7, 2023; and

**WHEREAS,** the City received two proposals from Urban Field Studio and DHALIN and after careful review and consideration the proposal from Urban Field Studio was selected by an internal panel of reviewers; and

**WHEREAS,** the project will be funded with American Rescue Plan Act funds and set at a not to exceed amount of $60,000; and

**NOW, THEREFORE, BE IT RESOLVED** by the City Council of the City of Oakley authorizes the City Manager to execute an agreement with Urban Field Studio for the Library and O'Hara Residential Projects Design and Economic Feasibility Analysis and appropriating American Rescue Plan Act funds to the project.

PASSED AND ADOPTED by the City Council of the City of Oakley at a meeting held on the 11th of July, 2023 by the following vote:

AYES:

NOES:

ABSTENTION:

ABSENT:

**APPROVED:**

_____
Aaron Meadows, Mayor Date

**ATTEST:**

_____
Libby Vreonis, City Clerk Date

CITY OF OAKLEY

REQUEST FOR PROPOSALS

FOR THE

LIBRARY AND O'HARA RESIDENTIAL PROJECTS
DESIGN AND ECONOMIC FEASIBILITY STUDY
Date of Publication: April 7, 2023

PRE-PROPOSAL QUESTIONS DUE: Friday April 21, 2023, BY 5:00PM PST

VIRTUAL PRE-PROPOSAL MEETING (NON-MANDATORY):
Thursday April 27, 2023 @ 3pm

PROPOSALS DUE: Friday May 12, 2023, BY 5:00PM PST

Electronically Submitted to the City Manager
Attention: Joshua McMurray
Oakley City Hall
3231 Main Street
Oakley, CA 94561
McMurray@ci.oakley.ca.us

and

Electronically Submitted to Patrick O'Keeffe
Special Advisor, Baker Tilly
925-997-7753
pat.okeeffe@bakertilly.com

Final 4-7-23

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## A. INVITATION

The City is seeking proposals from a team of qualified design and economic consulting firms to prepare a Feasibility Study ("Study") for the design, financing and construction of a new City library, senior center and veterans hall ("Community Center") on a parcel next to City Hall, in combination with the disposal of a separate City-owned downtown property for the development of a mixed-income residential project. The private residential development would contribute all or a portion of the cost of constructing the public Community Center through the sale of the downtown property (O'Hara block).

The consulting team selected for this project will be asked to address the following elements as part of the Study:

1. Community Center concept space plan.
2. O'Hara block residential concept plan.
3. Financial analysis of the residual land value of the O'Hara block for sale.
4. Financing plan for the Community Center.
5. Identification of local, State and Federal grant/loan funding sources for the public facilities
6. Analysis of whether one development entity should construct both the public and private buildings or separate development entities.
7. Key stakeholders and public input approach, including City and County commissions and the City Council/Board of Supervisors.
8. Draft elements for Notice of Availability/RFP for disposition of the O'Hara block though the Surplus Land Act process.
9. List of potential developer/construction recipients of RFP solicitations for development of the public and private projects

The City has budgeted $50,000 to complete the scope of services required by this Request for Proposals (RFP). A contract will be awarded to the consulting team whose proposal provides the best overall value for the required services within the allotted funding amount. The Plan is scheduled for completion by September 30, 2023.

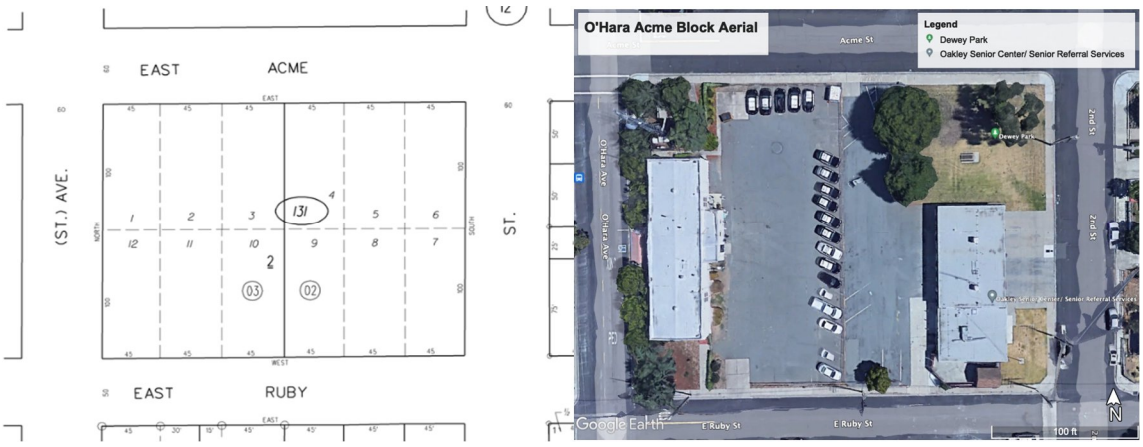
## B. GENERAL PROJECT BACKGROUND AND DESCRIPTION

### *Public Facilities*

The City's current library occupies 3,000 square feet of Liberty Union High School. The facility is too small for a community the size of Oakley and expansion at the existing site is not feasible. The City placed a measure before the voters (Measure K) in 2016 to provide funding for a new library on an underutilized parcel next to City Hall. Unfortunately, this measure did not receive the two thirds support required. The City then looked to other means to develop a library that did not require tax measures for financing. This led to the idea of selling a City-owned parcel in a downtown block (O'Hara block – see Figure 1) to a developer to construct both the Community Center and a mixed-income residential project as a single development in a public private partnership model.

One of the parcels in the O'Hara block is the site of a 2,500 square foot older building that houses the City's senior center (Parcel 02). Utilization of this parcel would require demolition of the existing building and recreating the senior center space. In addition, there is a desire for a veteran's hall space for which there are no current facilities. These three public uses combined are termed the "Community Center" space for ease of description. The other half of the block (Parcel 03) is currently owned by Contra Costa County ("County") and will be conveyed to the City to allow consolidation of the entire block. The County's existing building will be demolished. Additional detailed background information about the site is available in Attachment A – Background Information and Scope of Services.

*Figure 1 – O'Hara Block and Parcels*




*Private Facilities*

The concept for the private residential portion of the project is the development of a mixed-income multi-family rental building with 25% of the units as affordable per the Surplus Land Act (SLA) law and the remaining at market rate. The development parameters are described in Attachment A. The development would occur on the O'Hara block, to be sold through the SLA disposition process, and the land sale proceeds would be maximized through density increases to fund a portion of the Community Center cost. In addition to being located downtown, the block is also near a planned train station platform for the ACE commuter train creating a transit-oriented development (TOD) opportunity.

*Initial Analysis*

The City has undertaken an initial feasibility analysis of the public and private projects as set forth in the Baker Tilly memorandum dated January 2023 (see Attachment B). The original concept was for the development of a mixed-use project consisting of the Community Center and a mixed-income residential project as a single development on the downtown block on O'Hara Avenue. This envisioned a public private partnership whereby a single developer would construct both the public and private facilities in one

building, and the land payment for the private residential project would be used to pay a portion of the costs to construct the public Community Center.

The initial analysis also examined the feasibility of separating the public and private projects into separate projects and constructing the Community Center on the underutilized parcel next to City Hall and allowing the O'Hara block to BE developed more intensely for residential only (see Figure 2 – City Hall Site).

*Figure 2 City Hall Site – Parcel 035090076*




Existing City Hall parcel outlined in yellow, parcel 037090076 available for Community Center

On January 24, 2023, the City Council considered these alternative approaches and opted to pursue the utilization of two sites with the residential project land payment offsetting a portion of the public facilities cost. The Council also expressed willingness to amend existing development standards for the O'Hara block to allow increased density and height. The parameters of this approach are detailed in Attachment A, including links to General Plan and Downtown Specific Plan documents. This RFP is structured to create concept design plans and financial analysis of the two sites with their respective public and private uses.

*Subsequent Steps*

If the study produced by the consultant team selected through this RFP process determines the concept is feasible, the City would then proceed with a solicitation of developer(s) to construct the public and private facilities. The disposition of the O'Hara block would require using the Surplus Land Act (SLA) sale process. CEQA analysis would

be undertaken after a developer is selected and as part of the project entitlements, and is not required for this study.

Detailed background information and Scope of Services is contained in Attachment A.

C. TENTATIVE TIMELINE

The tentative RFP timeline is provided for the convenience of prospective proposers and is subject to change. Any such change will be stated in an addendum to this RFP. The tentative RFP timeline is as follows:

| Action | Date | Time |
|---|---|---|
| Request for Proposals Released | Apr. 7, 2023 | N/A |
| Deadline for Proposer Questions | Apr. 21, 2023 | 5:00 PM PST |
| Non-mandatory Pre-proposal Meeting | Apr. 27, 2023 | 3:00 PM, PST |
| Proposals Due | May 12, 2023 | 5:00 PM PST |
| Staff Evaluate Written Proposals | May 15-19, 2023 | N/A |
| Consultant Interviews (if needed) | May 24, 2023 | TBD |
| Contract Scope and Fee Negotiation | May 26, 2023 | N/A |
| Award of Contract by City Council | June 13, 2023 | N/A |

The pre-proposal meeting will be held via a Zoom video conference. Details regarding the pre-proposal meeting will be provided upon RSVP to Pat OKeeffe: pat.okeeffe@bakertilly.com. Attendance is not mandatory; however, prospective proposers are encouraged to attend to learn about the project scope. Answers to proposer questions received by the deadline indicated above will be emailed to all known prospective proposers.

D. PROPOSAL CONTENT

Proposals should be organized in the following sections:

1. Cover Letter - The cover letter shall include the name, address, and telephone number of the principal person the City may contact regarding the proposal. Additionally, the cover letter must include the signature(s) of the company officer(s) empowered to bind the firm, with the title of each (e.g., president, vice president, general partner), and the acknowledgment of the receipt of any addenda, by number, if issued for this Request for Proposals.

2. Firm(s) Description - A description of the proposer's organization, including names of principals, number of employees, longevity, client base, areas of specialization and expertise, and any other pertinent information that may assist proposal evaluators to form an opinion about the stability and financial strength of the organization.

Project Team and Qualifications – Identify and describe each team member's experience, qualifications, and role in the Project. It is anticipated that an architectural/design firm and economic firm will be the principal consultants required. Provide an organization chart of the team members and lead project manager. Include any relevant qualifications of the project manager (individual responsible for day-to-day management of the project) and prior experience working with the proposed project team. Provide one-page or less resumés of key personnel including their experience with similar projects in the past 10 years.

The key personnel identified shall be dedicated to the project for its entire duration. The City, at its discretion, may allow substitutions in the event an employee leaves the firm or is otherwise unable to perform job duties. Include a summary of each sub-consultant including their qualifications, experience, and technical capabilities necessary to fulfill their respective portion of the Project. Describe how each sub-consultant will be managed and utilized.

It is expected that consulting teams will present qualifications and have relevant experience with library and public facilities design, multi-family residential design, private development proforma analysis, and public facilities financing. The depth of such qualifications and experience will be a significant factor in evaluating prospective proposers. It is anticipated that the team will consist of an architectural and economic firm.

Provide at least three references for whom the proposer has performed similar services of similar scope within the past three years. Include the organization name and address, the name and telephone number of a contact person, and a brief description of the services performed by the consultant.

3. Project Understanding - Demonstrate an understanding of the project and familiarity with the project area, requirements, and constraints for the project. Additionally, identify "critical issues" and other elements of concerns to the project.

4. Project Work Plan & Approach - Present a well-developed approach to the Scope of Services, including phasing approaches, methodologies, organization and scheduling of tasks to be performed. Include a statement outlining the anticipated involvement of City staff as outlined in Attachment A – Scope of Services.

5. Project Schedule - Proposers shall include as part of their proposal package a detailed project schedule listing the consultant services identified in the detailed scope of services and the time required to complete each of the specified tasks. This should be in the form of a Gantt chart schedule showing tasks, subtasks, and milestones to perform services with a completion deadline of September 30, 2023.

6. Disclosure(s) – Provide a complete disclosure of any prior or ongoing incidents as to which it is alleged that the Consultant has defaulted or failed to perform, and which has led to a consultant agreement being terminated prior to adequate project completion. Identify the parties involved and the circumstances of the default or termination. Also, describe any civil or criminal litigation or investigation pending which involves the Consultant or in which the Consultant has been judged guilty or liable.

   If the business or person submitting this proposal has been debarred, suspended or otherwise lawfully precluded from participating in any public procurement activity, including being disapproved as a subcontractor with any Federal, state or local government, or if any such preclusion from participation from any public procurement activity is currently pending, the Proposer shall fully explain the circumstances relating to the preclusion or proposed preclusion in the proposal. The Proposer shall include a letter with its proposal setting forth the name and address of the governmental entity, the effective date of this suspension or debarment, the duration of the suspension or debarment, and the relevant circumstances relating to the suspension or debarment. If suspension or debarment is currently pending, a detailed description of all relevant circumstances including the details enumerated above shall be provided.

   If none of these issues are applicable to the Consultant, provide a statement that no disclosures are needed.

7. Contract Acceptance – The Proposer must indicate their willingness to execute the attached sample City Consultant Services Agreement (Attachment C) and must submit any proposed changes to the Agreement along with an explanation of the request as part of their response to this Request for Proposals. The City reserves the sole right to accept, reject or modify any proposed changes to the Agreement.

8. Cost and Budget Proposal – The cost proposal shall be based on a not-to-exceed budget amount of $50,000, with submitting firms evaluated on their demonstrated ability to provide cost effective services and deliverables as required by the Scope of Services in Attachment A. The cost proposal shall include hour and fee breakdowns to deliver the services identified in Attachment A. Line items shall be broken out by task and subtask. Proposers must provide an amount for each item, including optional tasks. Approval of the individual optional task budget is at the City's discretion. The nine major tasks inn Section A shall be included.

   No markups shall be allowed on reimbursable expenses and the maximum markup on each sub-consultant shall be no more than 5%.

## E. EVALUATION OF PROPOSALS

Proposals will be evaluated by a committee of City employees facilitated by Baker Tilly. Points will be assigned based on the proposer's qualifications, effectiveness and efficiency in supporting each item being rated.

| Criteria | | Possible Points |
|---|---|---|
| 1. | Firm and team qualifications, including personnel, experience, and technical ability for this type of project | 40 |
| 2. | Project understanding and approach, work plan, and schedule | 30 |
| 3 | Budget | 30 |
| | Total Possible Points | 100 |

After the City's evaluation committee reviews all submitted written proposals, the top ranked consultant teams may be invited for presentations and/or interviews. Additional information may be required and will be defined at that time.

Following presentations and/or interviews, the evaluation committee will again rank the consultants, and the most qualified consultant team will be identified, based on the best overall ranking of the committee members. Contract negotiations will then begin with the highest-ranked proposer. If negotiations with the highest-ranked consultant are not successful, in consideration of either the scope or cost, the second-ranked team will be invited to negotiate, and so on.

## F. APPROVAL PROCESS

The City Manager will recommend to the Oakley City Council the highest-ranked proposer who successfully negotiated a scope and project cost with the City. The City Council's acceptance of the proposal will be evidenced by approval of a resolution authorizing the City Manager to execute the consulting agreement with the consultant.

## G. CONTRACT AND OTHER REQUIRED DOCUMENTS

Following the City Council approval of the contract, and within ten calendar days, the selected consultant shall submit the following documents to the City:

1. An executed Consultant Services Agreement (a sample agreement is attached to this RFP as Attachment C, and its terms and conditions are incorporated by reference).
2. Evidence of the required insurance coverage.
3. An Oakley business license application and payment.
4. A completed Internal Revenue Service Form W-9.

Failure of the selected consultant to make a timely submission of the required documents may result in rescission of the acceptance of the proposal by the City and award of contract to another proposer. Once the consultant has submitted the above items, and they are deemed complete, the City Manager will execute the agreement and issue a Notice to Proceed.

H. DISCLAIMERS AND RESERVED RIGHTS

This RFP does not commit the City to award a contract or to pay any costs incurred in the preparation of a proposal in response to this RFP.

The City reserves the right to accept or reject any or all proposals received, to negotiate with qualified proposers or to cancel the RFP at any time.

The City may require proposer to submit additional data or information the City deems necessary to substantiate the costs presented by the proposer. The City may also require proposer to revise one or more elements of its proposal in accordance with contract negotiations.

The City reserves the right to evaluate proposals for a period of ninety days before deciding which proposal, if any, to accept.

I. CONTACT PERSON

The processing of this RFP is being coordinated by a consultant on behalf of the City. Inquiries relating to this RFP and/or the required services should be directed to:

Patrick O'Keeffe, Special Advisor
Baker Tilly
925-997-7753
Pat.okeeffe@bakertilly.com

All questions related to the RFP process or the project itself shall be addressed directly to the contact listed above. Contact with City employees during the proposal process is prohibited without prior written consent of the contact person listed above, to ensure that all proposers have equal access to background information. Proposers who directly contact City employees risk elimination of their proposals from consideration. Responses to questions from responding firms will be sent to all firms on the consultant list.

Deadline for Consultant's questions is April 21, 2023, at 5:00 PM PST.

J. DEADLINE FOR SUBMISSION OF PROPOSALS

Proposers shall submit their RFP response via email to the contacts below prior to the time and date set for receiving proposals as stated on the cover page of this RFP or any modifying addenda. Proposers may provide their submittal in PDF format.

Email subject to be phrased "Submission of Proposal for LIBRARY RESIDENTIAL FEASIBILITY STUDY" and emailed to:

1. Joshua McMurray, City Manager
   City of Oakley
   McMurray@ci.oakley.ca.us

2. Patrick O'Keeffe, Special Advisor
   Baker Tilly
   Pat.okeeffe@bakertilly.com

To be considered, RFP responses must be received by the contact persons specified above by 5:00 p.m., May 12, 2023. Late proposals will not be considered. All written work products shall include Microsoft Word and/or PDF files with high-resolution graphics.

## K. CONFIDENTIALITY OF DOCUMENTS

All proposals shall be deemed public documents at the time of contract award to the successful proposer. This RFP is intended to be worded in a manner so as not to elicit proprietary information. If proprietary information is submitted as part of the proposal, such information shall be clearly labeled "Proprietary" and accompanied by a request that the information be returned by the City to the Proposer. If proposals contain proprietary information, then proprietary paragraphs and/or other data should be clearly marked as noted above.

The information on the pages of the proposal identified as proprietary will be used only for the evaluation of the proposal, but proposer understands that disclosure may be required under the California Public Records Act or other Federal, State, and local law, as determined by the City.

Note that wholesale use of headers/footers bearing designations such as "confidential", "proprietary", or "trade secret" on all or nearly all of a proposal is not acceptable, and may be deemed by the City as a waiver of any exemption claim. Any proposal that includes a blanket statement or limitation which would prohibit or limit public inspection may be considered non-responsive and may be rejected. Budget information is generally not considered proprietary information. The identification of exempt information must be specific. The City assumes no responsibility for disclosure or use of unmarked data for any purposes.

## Attachments

1. Attachment A – Background Information and Scope of Services
2. Attachment B - Baker Tilly Initial Analysis (Separate attachment)
3. Attachment C - Standard form of City Contract
4. Attachment D – *The Press* Article Describing Library Ballot Measure K

# ATTACHMENT A

## SCOPE OF SERVICES
## PREPARATION OF A LIBRARY RESIDENTIAL FEASIBILITY STUDY

### PROJECT BACKGROUND AND DESCRIPTION

*Historical Context*

The City of Oakley is a community of approximately 45,000 residents located within approximately 16 square miles in the eastern portion of Contra Costa County along Highway 4 in the San Francisco Bay Area. Evidence shows that the first residents of Oakley were Indians of the Miwok, Yokut and Ohlone Tribes. James O'Hara was one of the first Anglo settlers in Oakley when he arrived in 1889 purchasing seven hundred acres of government grant land and later reselling most of this land to other settlers. In 1900, the first Santa Fe train stopped in Oakley providing the spur needed for agricultural growth of the area and afforded local farmers a means of transporting their products to market. The Ladies Improvement Club was organized in 1913 with Mary O'Hara serving as the first president. These women were instrumental in the development of Oakley's first library. For much of its history from the late 1800's Oakley was an agricultural area including cultivation of Zinfandel grapes. Residential growth began in earnest in the 1990's as Oakley became an affordable residential suburb of the San Francisco/Oakland/Walnut Creek business centers.

*Current Context*

The City entity is a California municipality incorporated on July 1, 1999, and operates under a Council-City Manager form of government. Oakley now has a labor force of 19,900, with an unemployment rate of 3.4 % in October 2022. The new Contra Costa Logistics Center under construction in Oakley will include nearly 2 million square feet of light industrial building space and is expected to bring 2,100 jobs to the community. Amazon occupied the first of five buildings planned for the Logistics Center. The City continues the revitalization of the downtown area with the improvement and widening of Main Street. New commercial development is planned in the Downtown and grant funding has been received by the San Joaquin Joint Powers Authority to install an Amtrak train platform in the Downtown area.

*Prior Library Planning and Financing*

As described in Attachment D, in 2016 the City placed Measure K on the ballot for voter approval to fund the development of a new Library adjacent to City Hall. Conceptual design work was undertaken by the firm Noll & Tam for the creation of a 20,000 square foot library at an estimated cost of $12 million ($600 per square foot). The space did not include the Senior Center and Veterans Hall uses. Although the measure had over 60% support it did not receive the 2/3rds vote necessary to pass. The effort did however establish some basic parameters for the project including: the need for a larger library facility based on the usage data of the existing

3,000 square foot facility and the growing population; the importance of a library as part of the "intellectual infrastructure" of the community; the approximate 90% resident survey support for a new facility; the types of uses and spaces needed in a new library; and, a practical approach to the cost ("it doesn't have to be a Lexus").

*County Library Operations*

Contra Costa County administers the operations of the existing facility under contract with the City. This is a typical arrangement for Contra Costa County cities whereby the City provides the building space, and the County provides the staffing. This arrangement will continue with a new facility making the County a major stakeholder in the design of the project. In addition, half of the O'Hara block contemplated for the residential project is currently owned by the County and will be transferred to City ownership in 2023 for the purpose of creating a new library, thereby providing a County financial contribution to the capital cost of the new facility.

*General Plan and Downtown Specific Plan Standards*

General Plan: The General Plan is available on the City's website in the Planning Department section. (see link at the end of this Attachment A). The designated land uses per the General Plan Land Use Map are as follows:

*O'Hara Site*: Public and Semi-Public land use designation:
"The Public and Semi-Public Facilities (PS) designation provides for government owned facilities, public and private schools, institutions, civic uses, assembly uses, and public utilities, quasi-public uses such as hospitals and churches and supporting retail and service uses. The designation includes properties owned by public agencies such as libraries, fire stations, public transportation corridors, and schools, as well as privately owned transportation and utility corridors such as railroads, and power transmission lines. In specific locations, such as downtown Oakley, mixed use projects may be determined consistent with this designation. Public and Semi-Public facilities should be located in a manner that best serves the community's interests, allows for adequate access by bus, bicycle, or foot to minimize trip generation and provides for access by all residents, where appropriate. 0.25 to .67 FAR (Floor Area Ratio)." This land use designation recognizes current County and City facilities on the block. It may be possible that the residential development could fit within the use description for mixed-use, but the FAR limit will constrain the desired development. A General Plan amendment may be needed to change the land use to be consistent with the surrounding Commercial Downtown land use designation that has a higher FAR.

*City Hall Site:* Commercial Downtown land use designation:
"The Commercial Downtown (CD) designation provides for the mixture of retail and service commercial, entertainment, office, and/or multiple-family residential uses that are intended to preserve and enhance the historic and pedestrian-scale character of the Downtown. Preferred residential uses include condominiums and townhomes and high-quality second and third floor apartment and condominium uses. Multi-family residential uses are required to be permanent dwellings with each unit having separate restrooms, kitchens, and thermostats. The

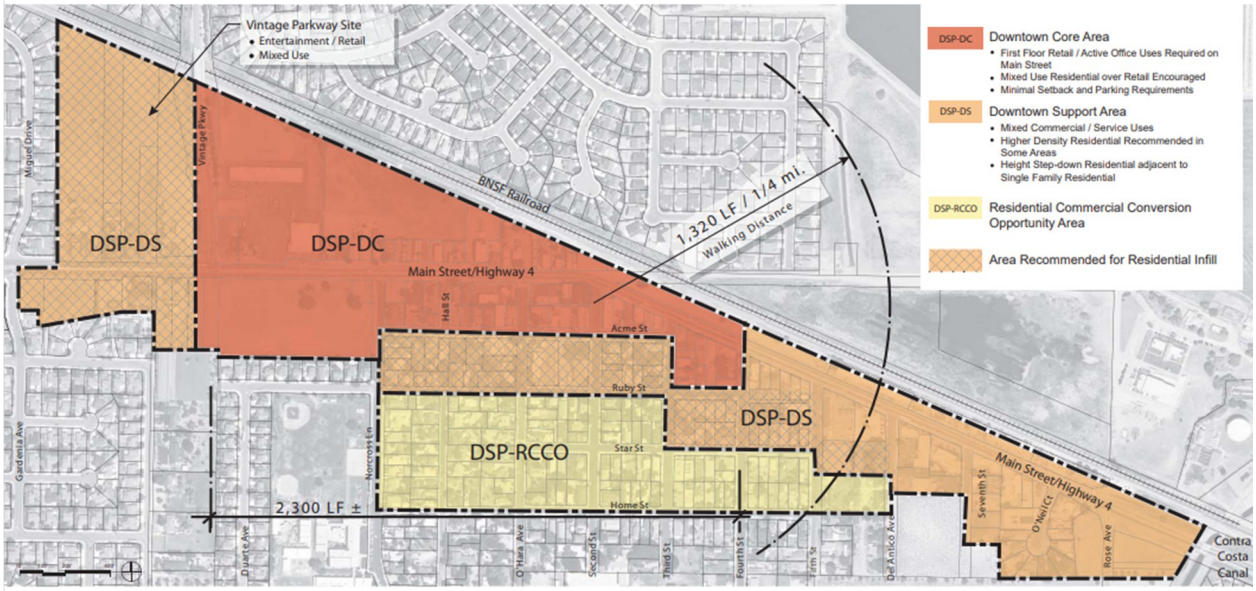
designation also provides for public/semi-public uses, parks and urban open spaces, and similar and compatible uses. 0.1 to 1.0 FAR; 40% maximum lot cover; 35-foot maximum building height." These standards will support the development of a new community center.

Downtown Specific Plan: The Downtown Specific Plan (DSP) is available on the City's website in the Planning Department section. A link to the DSP is included at the end of this Attachment A. The development parameters for each of the sites is summarized as follows:

*O'Hara Site:* The parcel is within the Downtown Support Area which is a subarea of the Downtown Specific Plan (see Figure 3 Downtown Specific Plan Sub Area Map). This is considered a transitional area between the Downtown Core sub area and the lower density residential areas. Mixed use and higher density residential are recommended in some areas. The residential density limit for this sub area is 24 units per acre with a Conditional Use Permit. The Plan provides that: "Residential density shall be determined on a case-by-case basis as part of the Conditional Use Permit (CUP) process; the distribution shall be as indicated on the Subarea Map." The density limitation for this area will not support the level of density that will maximize the residential opportunity for market rate and affordable housing, and the proximity of the block to the planned Downtown Transit Center (see Figure 4 Downtown Development Concept Plan). It will be appropriate for the density and possibly the height limitations (currently four floors and/or 50 feet – see Page 69 of DSP) to be amended as part of the entitlement process for development of this block, and the City Council has expressed a willingness to consider these amendments, including increasing the residential density to 160 units per acre per the suggestion in Attachment B Baker Tilly analysis. The DSP residential parking standards for this block are minimum 1 stall per unit (1 or 2 bedroom); another .5 space for each additional bedroom above 2 bedrooms for multifamily projects; or an additional space for 3 bedrooms for any single units. "Reduced parking requirements are recommended to encourage higher density development adjacent to the Downtown Core."

*City Hall Site:* This parcel is within the Downtown Core subarea which encourages active first floor retail and office uses, vertically mixed-use commercial/residential uses and minimal setback and parking requirements (see Figure 3 Downtown Specific Plan Sub Area Map). Public uses that encourage a high level of pedestrian activity are also encouraged. Commercial density is limited to an FAR of 1.0, and building height is limited to four floors or 50 feet. Parking standards are 3/1000 with shared parking allowed: "Shared or "blended" parking standards are recommended to encourage higher density development in the Downtown Core." Shared parking with the adjacent existing City Hall parking lots may be appropriate if needed.

*Figure 3 – Downtown Specific Plan Subarea Map*




Downtown Specific Plan Subarea Map

*Figure 4 Downtown Development Concept Plan*




Downtown Development Concept Plan

*Stakeholders*

The following stakeholders will have an interest in providing input or approving the project, and meetings should be scheduled and budgeted for presentations and discussions with these groups:

- City Council
- City Planning Commission
- City staff including City Manager, Planning, Finance, Public Works, Senior Center
- County Board of Supervisors
- County Library Commission
- County staff including County Administrator's Office, County Librarian, and Veterans Service Office
- Friends of Oakley Library

*Surplus Land Act Disposition Process (SLA)*

The County will sell its portion of the O'Hara block to the City prior to the City's disposition of the entire block. This initial consolidating property transfer will not be subject to the SLA process. The subsequent sale of the block by the City to a private profit or non-profit developer will be subject to the SLA disposition process. The first step will require sending a Notice of Availability (NOA) to a list of potential developers maintained by the State Department of Housing and Community Development. The City may supplement this list with developers provided by the consultant team per Task 9. The SLA also limits the City on the conditions it can place on the development, and the conditions must be reviewed by the State Department of Housing and Community Development (HCD) prior to the initiation of negotiations with a developer. There is then a negotiation period with developers that respond to the solicitation per State mandated time periods. The City intends to supplement the NOA with an RFP that sets forth the development expectations for number of units, development form, and residual land value created per Task 8. The SLA requires that a minimum of 25% of the units be affordable to lower income households of less than 80% of area median income. Rents are limited to the product of 30 percent times 60 percent of the area median income based on household size (See Attachment B – Baker Tilly Initial Analysis for rents for one and two person households).

SCOPE OF SERVICES AND REQUIRED TASKS AND DELIVERABLES

The following provides additional detail for the Scope of Services. All other elements not discussed below (e.g., schedule, budget) are still required.

*Feasibility Analysis and Report*

The consulting team selected for this project will prepare a feasibility analysis and report with the following elements and deliverables:

1. Community Center Concept Plan- This preliminary plan should explore and include:
    - The appropriate size of the center
    - Alternatives for varied sizes of the major uses (Library, Senior Center, Veterans Hall)

- Site plan
- Interior plan
- Concept elevations or architecture alternatives
- Cost estimate including breakdown of cost components
- Phasing program if appropriate

2. Ohara Block Residential Concept Plan- This conceptual plan will guide the residual land use financial analysis as well as form the basis for an SLA solicitation of developers, and should include:
    - Density, parking, and height alternatives analysis
    - Site plan
    - Floor plans
    - Sections depicting floor heights
    - Mix of affordable and market rate units
3. Financial Analysis/proforma- to establish the residual land value for sale of the O'Hara block including:
    - Development costs including soft/hard construction costs and financing
    - Projected income including market rate and restricted affordable rates
    - Project value and residual land value
    - Alternative financial scenarios based on alternative concept plans

4. Financing Plan for the Community Center - including use of residual land value payment from the O'Hara block, City Capital Improvement Program (CIP) funds, and potential local, State, and federal grants. Include financing phasing program if appropriate.
5. Survey of Local, State and Federal Grant/loan Funding Sources - for the public facilities funding gap.
6. Analysis of Development Entity - to determine if one developer should construct both the public and private buildings, or separate development processes for each building. Explore advantages and disadvantages of a single private development entity constructing both the public Community Center and the private residential project verses a separate process for the Community Center of the traditional design/bid public process.
7. Key stakeholders and Public Input Approach-scheduling and sequencing of gathering input including City and County commissions and the City Council/Board of Supervisors. Outline a sequencing of meetings with stakeholders at the appropriate stages of concept development to gain initial background information and test design and cost alternatives as the concept evolves.
8. Elements for Notice of Availability/RFP - for disposition of the O'Hara block though the Surplus Land Act process. This will be based on the preferred concept that yields the appropriate number of units and residual land value to be included as an objective of the developer solicitation process.
9. List of Potential Developer/construction Recipients of RFP – provide list of developers to receive the NOA/RFP solicitations for development of the public and private projects.

Online Reference Documents

1. General Plan
2. Downtown Specific Plan

ATTACHMENT B
BAKER TILLY INITIAL FEASIBILITY ANALYSIS
[See separate Attachment]

ATTACHMENT C
SAMPLE CONSULTANT SERVICES AGREEMENT

OAKLEY
CALIFORNIA

CONSULTING SERVICES AGREEMENT BETWEEN THE CITY OF OAKLEY AND _____ FOR _____

THIS AGREEMENT for consulting services is entered into by and between the City of Oakley, a municipal corporation in the State of California (hereinafter referred to as "City") and _____ (hereinafter referred to as "Consultant"), collectively sometimes referred to hereinafter as the "Parties", as of _____, 2023 (the "Effective Date").

Section 1. SERVICES. Subject to the terms and conditions set forth in this Agreement, Consultant shall provide to City the services described in the Scope of Work or proposal letter attached hereto and incorporated herein as Exhibit A at the time and place and in the manner specified therein. In the event of a conflict in or inconsistency between the terms of this Agreement and Exhibit A, the Agreement shall prevail.

1.1 Term of Services. The term of this Agreement shall begin on the Effective Date and shall end on DECEMBER 31, 2023, the date of completion specified in Exhibit A, and Consultant shall complete the work described in Exhibit A prior to that date, unless the term of the Agreement is otherwise terminated or extended, as provided for in Section 8. The time provided to Consultant to complete the services required by this Agreement shall not affect the City's right to terminate the Agreement, as provided for in Section 8. Should this Agreement be amended to include additional tasks as contemplated in Section 1, the term of services shall be extended as mutually agreed upon by City and Consultant.

1.2 Standard of Performance. Consultant shall perform all services required pursuant to this Agreement in the manner and according to the standards observed by a competent practitioner of the profession in which Consultant is engaged in the geographical area in which Consultant practices its profession. Consultant shall prepare all work products required by this Agreement in a substantial, first-class manner and shall conform to the standards of quality normally observed by a person practicing in Consultant's profession.

1.3 Assignment of Personnel. Consultant shall assign only competent personnel to perform services pursuant to this Agreement. In the event that City, in its sole discretion, at any time during the term of this Agreement, desires the reassignment of any such persons, Consultant shall, immediately upon receiving notice from City of such desire of City, reassign such person or persons.

1.4 Time. Consultant shall devote such time to the performance of services pursuant to this Agreement as may be reasonably necessary to meet the standard of performance provided in Section 1.1 above and to satisfy Consultant's obligations hereunder.

Section 2. COMPENSATION. City hereby agrees to pay Consultant a sum not to exceed _____), notwithstanding any contrary indications that may be contained in Consultant's proposal, for services to be performed and reimbursable costs incurred under this Agreement. In the event of a conflict between this Agreement and Consultant's proposal, attached as Exhibit A, regarding the amount of compensation, the Agreement shall prevail. City shall pay Consultant for services rendered pursuant to this Agreement at the time and in the manner set forth herein. The payments specified below shall be the only payments from City to Consultant for services rendered pursuant to this Agreement. Consultant shall submit all invoices to City in the manner specified herein. Except as specifically authorized by City, Consultant shall not bill City for duplicate services performed by more than one person.

Consultant and City acknowledge and agree that compensation paid by City to Consultant under this Agreement is based upon Consultant's estimated costs of providing the services required hereunder, including salaries and benefits of employees and subcontractors of Consultant. Consequently, the parties further agree that compensation hereunder is intended to include the costs of contributions to any pensions and/or annuities to which Consultant and its employees, agents, and subcontractors may be eligible. City therefore has no responsibility for such contributions beyond compensation required under this Agreement.

2.1 Invoices. Consultant shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:

- Serial identifications of progress bills; i.e., Progress Bill No. 1 for the first invoice, etc.;
- The beginning and ending dates of the billing period;
- A Task Summary containing the original contract amount, the amount of prior billings, the total due this period, the balance available under the Agreement, and the percentage of completion;
- At City's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense;
- The Consultant's signature.

2.2 Monthly Payment. City shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. City shall have 30 days from the receipt of an invoice that complies with all of the requirements above to pay Consultant.

2.3 Final Payment. City shall pay the last 10% of the total sum due pursuant to this Agreement within 60 days after completion of the services and submittal to City of a final invoice, if all services required have been satisfactorily performed.

2.4 Total Payment. City shall pay for the services to be rendered by Consultant pursuant to this Agreement. City shall not pay any additional sum for any expense or cost whatsoever incurred by Consultant in rendering services pursuant to this Agreement. City shall make no payment for any extra, further, or additional service pursuant to this Agreement.

In no event shall Consultant submit any invoice for an amount in excess of the maximum amount of compensation provided above either for a task or for the entire Agreement, unless the Agreement is modified prior to the submission of such an invoice by a properly executed change order or amendment approved by the City Manager, which shall not exceed the maximum amount allowed by the Oakley Municipal Code.

2.5 Hourly Fees. Fees for work performed by Consultant shall not exceed the amounts shown on the Compensation Schedule attached hereto and incorporated herein as Exhibit A.

2.6 Reimbursable Expenses. Reimbursable expenses are specified in Exhibit A, and expenses not listed in Exhibit A are not chargeable to the City.

2.7 Payment of Taxes. Consultant is solely responsible for the payment of employment taxes incurred under this Agreement and any similar federal or state taxes.

2.8 Payment upon Termination. In the event that the City or Consultant terminates this Agreement pursuant to Section 8 of this Agreement, the City shall compensate the Consultant for all outstanding costs and reimbursable expenses incurred for work satisfactorily completed as of the date of written notice of termination. Consultant shall maintain adequate logs and timesheets in order to verify costs incurred to that date.

2.9 Authorization to Perform Services. The Consultant is not authorized to perform any services or incur any costs whatsoever under the terms of this Agreement until receipt of authorization from the Contract Administrator.

Section 3. FACILITIES AND EQUIPMENT. Except as set forth herein, Consultant shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the services required by this Agreement. City shall make available to Consultant only the facilities and equipment listed in this section, and only under the terms and conditions set forth herein.

City shall furnish physical facilities such as desks, filing cabinets, and conference space, as may be reasonably necessary for Consultant's use while consulting with City employees and reviewing records and the information in possession of the City. The location, quantity, and time of furnishing those facilities shall be in the sole discretion of City. In no event shall City be obligated to furnish any facility that may involve incurring any direct expense, including but not limited to computer, long-distance telephone or other communication charges, vehicles, and reproduction facilities.

Section 4. INSURANCE REQUIREMENTS. Before beginning any work under this Agreement, Consultant, at its own cost and expense, shall procure the types and amounts of insurance listed below and in Exhibit B against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Consultant and its agents, representatives, employees, and subcontractors. Consistent with the following provisions, Consultant shall provide proof satisfactory to City of such insurance that meets the requirements

of this section and under forms of insurance satisfactory in all respects to the City, and that such insurance is in effect prior to commencing work under this Agreement. Consultant shall maintain the insurance policies required by this section throughout the term of this Agreement. The cost of such insurance shall be included in the Consultant's bid. Consultant shall not allow any subcontractor to commence work on any subcontract until Consultant has obtained all insurance required herein for the subcontractor(s) and provided evidence thereof to City. Verification of the required insurance shall be submitted and made part of this Agreement prior to execution. Verification of the required insurance is attached hereto and incorporated herein as Exhibit C.

4.1 Variation. The City may approve a variation in the insurance requirements, upon a determination that the coverage, scope, limit, and form of such insurance is either not commercially available, or that the City's interests are otherwise sufficiently protected.

4.2 Notice of Reduction in Coverage. In the event that any coverage required by this section is reduced, limited, or materially affected in any other manner, Consultant shall provide written notice to City at Consultant's earliest possible opportunity and in no case later than five days after Consultant is notified of the change in coverage.

4.3 Remedies. In addition to any other remedies City may have if Consultant fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, City may, at its sole option, exercise any of the following remedies, which are alternatives to other remedies City may have and are not the exclusive remedy for Consultant's breach:

- Order Consultant to stop work under this Agreement or withhold any payment that becomes due to Consultant hereunder, or both stop work and withhold any payment, until Consultant demonstrates compliance with the requirements hereof; and/or

- Terminate this Agreement.

Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES. Consultant shall to the fullest extent allowed by law, with respect to all Services performed in connection with this Agreement, defend with counsel acceptable to the City, and indemnify and hold the City and its officials, officers, employees, agents, and volunteers harmless from and against any and all losses that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant ("Claims").Consultant will bear all loses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such Claims, whether directly or indirectly ("Liability"). Such obligations to defend, hold harmless and indemnify the City shall not apply to the extent that such Liability is caused by the sole negligence, active negligence, or willful misconduct of the City or any third party.

With respect to third party claims against the Consultant, the Consultant waives any and all rights of any type of express or implied indemnity against the indemnitees.

However, notwithstanding the foregoing, in accordance with California Civil Code Section 1668, nothing in this Agreement shall be construed to exempt the City from its own fraud, willful injury to the person or property of another, or violation of law. In addition, and notwithstanding the foregoing, to the extent this Agreement is a "construction contract" as defined by California Civil Code section 2783, as may be amended from time to time, such duties of Consultant to indemnify shall not apply when to do so would be prohibited by California Civil Code Section 2782.

Section 6. STATUS OF CONSULTANT.

6.1 Independent Contractor. At all times during the term of this Agreement, Consultant shall be an independent contractor and shall not be an employee of City. City shall have the right to control Consultant only insofar as the results of Consultant's services rendered pursuant to this Agreement and assignment of personnel pursuant to Subparagraph 1.3; however, otherwise City shall not have the right to control the means by which Consultant accomplishes services rendered pursuant to this Agreement. Notwithstanding any other City, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Consultant and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by City, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of City and entitlement to any contribution to be paid by City for employer contributions and/or employee contributions for PERS benefits.

6.2 Consultant, Not Agent. Except as City may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind City to any obligation whatsoever.

Section 7. LEGAL REQUIREMENTS.

7.1 Governing Law. The laws of the State of California shall govern this Agreement.

7.2 Compliance with Applicable Laws. Consultant and any subcontractors shall comply with all laws applicable to the performance of the work hereunder, including but not limited to, the California Building Code, the Americans with Disabilities Act, and any copyright, patent or trademark law. Consultant's failure to comply with any law(s) or regulation(s) applicable to the performance of the work hereunder shall constitute a breach of contract.

7.3 Other Governmental Regulations. To the extent that this Agreement may be funded by fiscal assistance from another governmental entity, Consultant and any subcontractors shall comply with all applicable rules and regulations to which City is bound by the terms of such fiscal assistance program.

7.4 Licenses and Permits. Consultant represents and warrants to City that Consultant and its employees, agents, and any subcontractors have all licenses, permits, qualifications, and approvals of whatsoever nature that are legally required to practice their respective professions. Consultant represents and warrants to City that Consultant and its employees, agents, any subcontractors shall, at their sole cost and expense, keep in effect at all times during the term of this Agreement any licenses, permits, and approvals that are legally required to practice their respective professions. In addition to the foregoing, Consultant and any subcontractors shall obtain and maintain during the term of this Agreement valid business licenses from City.

7.5 Nondiscrimination and Equal Opportunity. Consultant shall not discriminate, on the basis of a person's race, religion, color, national origin, age, physical or mental handicap or disability, medical condition, marital status, sex, or sexual orientation, against any employee, applicant for employment, subcontractor, bidder for a subcontract, or participant in, recipient of, or applicant for any services or

programs provided by Consultant under this Agreement. Consultant shall comply with all applicable federal, state, and local laws, policies, rules, and requirements related to equal opportunity and nondiscrimination in employment, contracting, and the provision of any services that are the subject of this Agreement.

Consultant shall include the provisions of this Subsection in any subcontract approved by the Contract Administrator of this Agreement.

## Section 8. TERMINATION AND MODIFICATION.

8.1 Termination. City may cancel this Agreement at any time and without cause upon written notification to Consultant.

Consultant may cancel this Agreement upon 30 days written notice to City and shall include in such notice the reasons for cancellation.

In the event of termination, Consultant shall be entitled to compensation for services performed to the effective date of termination; City, however, may condition payment of such compensation upon Consultant delivering to City any or all documents, photographs, computer software, video and audio tapes, and other materials provided to Consultant or prepared by or for Consultant or the City in connection with this Agreement.

8.2 Extension. City may, in its sole and exclusive discretion, extend the end date of this Agreement beyond that provided for in Subsection 1.1. This Agreement may be extended at the option of the City. Should City decide to exercise its option to extend this Agreement, City shall provide written notice to Consultant at least sixty (60) days prior to the end date of this Agreement. Any such extension shall require a written amendment to this Agreement, as provided for herein. Consultant understands and agrees that, if City grants such an extension, City shall have no obligation to provide Consultant with compensation beyond the maximum amount provided for in this Agreement, unless City agrees to do so by written amendment to this Agreement. Similarly, Consultant understands and agrees that, City shall have no obligation to reimburse Consultant for any otherwise reimbursable expenses incurred during the extension period, unless City agrees to do so by written amendment to this Agreement.

8.3 Amendments. The parties may amend this Agreement only by a writing signed by all the parties.

8.4 Assignment and Subcontracting. City and Consultant recognize and agree that this Agreement contemplates personal performance by Consultant and is based upon a determination of Consultant's unique personal competence, experience, and specialized personal knowledge. Moreover, a substantial inducement to City for entering into this Agreement was and is the professional reputation and competence of Consultant. Consultant may not assign this Agreement or any interest therein without the prior written approval of the Contract Administrator. Consultant shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors noted in the proposal, without prior written approval of the Contract Administrator.

8.5 Survival. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between City and Consultant shall survive the termination of this Agreement.

8.6 Options upon Breach by Consultant. If Consultant materially breaches any of the terms of this Agreement, City's remedies shall include, but not be limited to the following:

8.6.1 Immediately terminate the Agreement;

8.6.2 Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Consultant pursuant to this Agreement;

8.6.3 Retain a different consultant to complete the work described in Exhibit A not finished by Consultant; or

8.6.4 Charge Consultant the difference between the cost to complete the work described in Exhibit A that is unfinished at the time of breach and the amount that City would have paid Consultant pursuant to Section 2 of this Agreement if Consultant had completed the work.

## Section 9. KEEPING AND STATUS OF RECORDS.

9.1 Records Created as Part of Consultant's Performance. All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Consultant prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the City. Consultant hereby agrees to deliver those documents to the City upon termination of the Agreement. It is understood and agreed that the documents and other materials, including but not limited to those described above, prepared pursuant to this Agreement are prepared specifically for the City and are not necessarily suitable for any future or other use. City and Consultant agree that, until final approval by City, all data, plans, specifications, reports and other documents are confidential and will not be released to third parties without prior written consent of both parties.

9.2 Consultant's Books and Records. Consultant shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services or expenditures and disbursements charged to the City under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement.

9.3 Inspection and Audit of Records. Any records or documents that Section 9.2 of this Agreement requires Consultant to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the City. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds TEN THOUSAND DOLLARS ($10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of City or as part of any audit of the City, for a period of three (3) years after final payment under the Agreement.

## Section 10 MISCELLANEOUS PROVISIONS.

10.1 Attorneys' Fees. If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.

10.2 Venue. In the event that either party brings any action against the other under this Agreement, the parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Contra Costa or in the United States District Court for the Northern District of California.

10.3 Severability. If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

10.4 No Implied Waiver of Breach. The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

10.5 Successors and Assigns. The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the parties.

10.6 Use of Recycled Products. Consultant shall prepare and submit all reports, written studies and other printed material on recycled paper to the extent it is available at equal or less cost than virgin paper.

10.7 Conflict of Interest. Consultant may serve other clients, but none whose activities within the corporate limits of City or whose business, regardless of location, would place Consultant in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

Consultant shall not employ any City official in the work performed pursuant to this Agreement. No officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.*

Consultant hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of the City. If Consultant was an employee, agent, appointee, or official of the City in the previous twelve months, Consultant warrants that it did not participate in any manner in the forming of this Agreement. Consultant understands that, if this Agreement is made in violation of Government Code §1090 *et.seq.*, the entire Agreement is void and Consultant will not be entitled to any compensation for services performed pursuant to this Agreement, including reimbursement of expenses, and Consultant will be required to reimburse the City for any sums paid to the Consultant. Consultant understands that, in addition to the foregoing, it may be subject to criminal prosecution for a violation of Government Code § 1090 and, if applicable, will be disqualified from holding public office in the State of California.

10.8 Solicitation. Consultant agrees not to solicit business at any meeting, focus group, or interview related to this Agreement, either orally or through any written materials.

10.9 Contract Administration. This Agreement shall be administered by Kevin Rohani, P.E., Public Works Director/City Engineer ("Contract Administrator"). All correspondence shall be directed to or through the Contract Administrator or his or her designee.

10.10 Notices.
Any written notice to Consultant shall be sent to:

_____

Any written notice to City shall be sent to:

City of Oakley

Attn: _____

3231 Main Street

Oakley, CA 94561

10.11 Professional Seal. Where applicable in the determination of the Contract Administrator, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation. The stamp/seal shall be in block entitled "Seal and Signature of Registered Professional with report/design responsibility," as in the following example.

| |
|---|
| _____<br>Seal and Signature of Registered Professional with report/design responsibility. |

10.12 Integration. This Agreement, including the Scope of Work and Compensation Schedule, Insurance Requirements, and Verification of Required Insurance, attached hereto and incorporated herein as Exhibit A, B and C respectively, represents the entire and integrated agreement between City and

Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral.

Exhibit A Scope of Services and Compensation Schedule

Exhibit B Insurance Requirements

Exhibit C Verification of Required Insurance

10.13 Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.

10.14 Authorized Signature. Each person and party signing this Agreement warrants that he/she has the authority to execute this Agreement on behalf of the principal and that the party will be bound by such signature.

The parties have executed this Agreement as of the Effective Date.

CITY

City of Oakley, a municipal corporation in the State of California

By: _____
Joshua McMurray, City Manager

Attest:

_____
Libby Vreonis, City Clerk

Approved as to Form:

CONSULTANT

_____ a California Corporation

By: _____
Signature

By: _____
Name, Title

_____
Derek P. Cole, City Attorney

EXHIBIT A

SCOPE OF SERVICES AND COMPENSATION SCHEDULE
[insert proposal]

EXHIBIT B

INSURANCE REQUIREMENTS

PROFESSIONAL SERVICE CONTRACTS:

Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, or employees.

MINIMUM SCOPE AND LIMIT OF INSURANCE

Coverage shall be at least as broad as:

1. Commercial General Liability (CGL): Insurance Services Offer Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than $1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability: Insurance Services Office Form Number CA 0001 covering, Code 1 (any auto), or if Consultant has no owned autos, Code 8 (hired) and 9 (non-owned), with limit no less than $1,000,000 per accident for bodily injury and property damage.
3. Workers' Compensation insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than $1,000,000 per accident for bodily injury or disease. (not required if consultant provides written verification, it has no employees)

4. Professional Liability (Errors and Omissions) Insurance appropriates to the Consultant's profession, with limit no less than $1,000,000 per occurrence or claim, $2,000,000 aggregate.

If the Consultant maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Other Insurance Provisions

The insurance policies are to contain, or be endorsed to contain, the following provisions:

*Additional Insured Status*
The City, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts or equipment furnished in connection with such work or operations. General liability coverage should be provided in the form of an endorsement to the Consultant's insurance (at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10 and CG 20 37 forms if later revisions used).

*Primary Coverage*
For any claims related to this contract, the Consultant's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

*Notice of Cancellation*
Each insurance policy required above shall state that coverage shall not be canceled, except with notice to the City.

*Waiver of Subrogation*
Consultant hereby grants to City a waiver of any right to subrogation which Consultant or any insurer of said Consultant may acquire against the City by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.

*Deductibles and Self-Insured Retentions*
Any deductibles or self-insured retentions must be declared to and approved by the City. The City may require the Consultant to provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.

*Acceptability of Insurers*
Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City.

*Claims Made Policies*
If any of the required policies provide coverage on a claims-made basis:

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided *for at least five (5) years after completion of the contract of work.*
3. If coverage is canceled or non-renewed, and not *replaced with another claims-made policy form with a Retroactive Date* prior to the contract effective date, the Consultant must purchase "extended reporting" coverage for a minimum of *five (5)* years after completion of contract work.

*Verification of Coverage*
Consultant shall furnish the City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant's obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

*Subcontractors*
Consultant shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that City is an additional insured on insurance required from subcontractors.

*Special Risks or Circumstances*
City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

EXHIBIT C

VERIFICATION OF REQUIRED INSURANCE

ATTACHMENT D
MEASURE K LIBRARY INFORMATION
From June 9, 2016, The Press newspaper article
"Library Measure K heads to Oakley voters"

"Oakley residents may soon be able to turn the page on plans for the city's new library.
On Tuesday, June 7, voters will decide the fate of Measure K, a proposed $12 million bond that, if approved, would allow for the construction of a new, 20,000-square-foot library and learning center. It needs a two-thirds majority to pass.
"The current library is too small for a community half our size," said Nancy Marquez -Suarez, assistant to Oakley City Manager Bryan Montgomery. "We are more than 40,000 (people) now and will grow over the next 20 years to more than 60,000. Studies conducted by the Contra Costa Library indicate that a library space of roughly 20,000 square feet is what is needed for Oakley."
If approved, residents would pay $7.75 per month, or $93 dollars a year, for 30 years beginning in the 2016 to 2017 fiscal year. The facility is expected to be built downtown, on city-owned property within the Civic Center Plaza, just east of City Hall and south of Civic Center Park. If approved, the facility could be open by mid-2018.
Oakley's library moved to Freedom High School in 1999, in what was slated to be a temporary, five-year agreement. Roughly 17 years later, the library remains in the same location,

hamstrung by its 3,000-square-foot size and shared arrangement with Freedom High School, according to Craig Leighty, chair of the 30-member Oakley Library Committee, a group of Oakley residents committed to improving the future of the community and helped explore the viability of the measure.

"Even though (it offers) a lot of services for a little library, it's really lacking in its ability to serve a growing community of more than 40,000 people," he said. "To have a little part of the room at the high school just doesn't seem right."

Proponents of the measure highlight that the facility is out of shelf space for books and movies; has no community-meeting rooms; a single outlet for visitors to plug in their electronics; and only eight public computers. There is also no quiet study room or workspaces, inadequate parking and limited schedules for highly requested family programming, which can only be accessed after school hours.

The library served 59,650 visitors (an average of 27 visitors per hour) last year; saw 89,640 items borrowed and 7,698 computer logins by patrons across its eight computer terminals.

Leighty said if the measure passes, the next phase would include gathering extensive public input on the look and features of the new facility. However, some likely additions would include increased hours, meeting rooms, areas for story times, a computer-technology center and a room for community displays. The library is currently open 41 hours a week and closed on Sunday and Monday.

Oakley Mayor Kevin Romick said that the community sorely needs the new facility.

"Libraries are a key component of any community's intellectual infrastructure," he said. "They are community-building and community-gathering spaces that demonstrate an investment in the lifelong learning of every city resident."

Leighty said he's feeling confident about the measure passing. Prior to the city moving the measure to the ballot, a survey of 380 residents revealed 89 percent thought the city needed a new library, and 91 percent thought it was a good investment for Oakley. The only concerns about the measure were whether enough yes votes could be garnered, the ballot amount and prevalent misconceptions regarding the services offered by libraries today, which far exceed just a collection of books, city officials said.

"We were very conscious about not trying to make this kind of like a Lexus facility, like what other libraries in the county have done, (but rather) make it based on what the voters would support," Leighty said."




A conceptual rendering of the future library in downtown Oakley shows just some of the possibilities in store for the city.

Rendering courtesy of the City of Oakley

PROPOSAL FOR DESIGN & ECONOMIC FEASIBILITY STUDY SERVICES

# LIBRARY & O'HARA RESIDENTIAL PROJECTS



CITY OF OAKLEY | MAY 2023

DAHLIN

DAHLIN

May 31, 2023

City of Oakley
Attn: Joshua McMurray, City Manager
and Patrick O'Keeffe, Special Advisor, Baker Tilly
3231 Main Street
Oakley, CA 94561

Joshua and Patrick:

We understand that the City of Oakley is taking a proactive approach in implementing a fiscally sustainable process of financing, and eventually building, a new library and associated community facilities. As a Bay Area firm with 47+ years of experience in local planning and architecture, DAHLIN can help the City create initial concept studies that successfully align with design trends, market conditions, and spatial and code requirements. We are adept at working with public agencies to help them analyze sites for both feasibility and high quality design. We understand the constraints and issues involved now and in the future for innovative, healthy and connected public facilities and residential developments that last.

**Recent, Similar Experience:** Our experience includes the Oak Park Specific Plan in Pleasant Hill, which is very similar to the Oakley Library & O'Hara Residential Projects. The project consisted of a collaboration with Contra Costa County, the City of Pleasant Hill, and the Parks and Recreation District to allow for the creation of a new library and ball fields, while also allowing for sale and disposition of excess land as residential development. The project required extensive collaboration between the different agencies and an understanding of the needs of the different stakeholders, while still developing a plan that met the needs of the different uses and providing the County with substantial financial return.

**Public and Private Sector Expertise:** Our experience with the private sector in addition to public agencies results in projects that uphold community vision and are market-friendly. Working with developers and the private sector also gives us insight into required typologies. DAHLIN has extensive experience with the proposed building typologies for the O'Hara Block and will use that knowledge for the preliminary concept plan.

**Public Agency & Developer Understanding:** As planners and architects, we offer a unique perspective and uncommon skill set. Experience on both sides of regulations informs the level of detail and market responsiveness characteristic of our work. Additionally, we have experience working as Project Manager for municipalities such as the Town of Yucca Valley (see page 20), which gives us insight into the project process from both the City and the design perspective. We truly understand the importance of communication and responsiveness from both sides.

Thank you for the opportunity to propose on this exciting project. I will be the principal person the City may contact regarding the proposal, and can be contacted at the address and phone number below. We acknowledge receipt of the Q&A on 4/27/23.

Regards,

Ritu Raj Sharma AICP, LEED® AP
Principal / Senior Planner
rituraj.sharma@dahlingroup.com

Nancy Keenan AIA, LEED® AP
President
nancy.keenan@dahlingroup.com

5865 Owens Drive
Pleasanton, CA 94588

O: +1-925-251-7200
F: +1-925-251-7201

WWW.DAHLINGROUP.COM

# Proposal for Design & Economic Feasibility Study Services for **Library & O'Hara Residential Projects**

**CITY OF OAKLEY | MAY 2023**


| | |
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| FIRM DESCRIPTION | 04 |
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## FIRM DESCRIPTION

DAHLIN is a diverse architecture, planning and interiors firm working with developers, municipalities, and private clients across a portfolio of residential, commercial, institutional and civic work.

# PASSION FOR PLACE®

is evident in all we do—whether we are working with a developer to entitle and deliver a new community, supporting a start-up firm in crafting an environment that promotes creativity and productivity, or advising a public agency considering a recreation center that fosters community spirit and pays for itself.

DAHLIN's integrated planning, architecture and interiors practice has been developed by over 45 years of shaping communities globally. With today's rapid urbanization of cities, DAHLIN's vast experience with urban infill, redevelopment, public facilities, and pedestrian-friendly mixed-use projects, offers creative placemaking strategies.

Our combined practices of planning and architecture delivers on the foundational ideas that shape the form, character and interactions of our cities and towns from conception through construction.

### LEADERSHIP

DAHLIN has 19 principals. Leadership includes:

Nancy Keenan, President
John M. Thatch, Senior Vice President - Design Innovation
Lauri Moffet Fehlberg, Senior Vice President - Architecture
Doug Dahlin, Founder

Since 1976, we have been committed to excellence in design—best demonstrated through our long-term client relationships and by our award-winning, financially successful, and sustainable design solutions.

From four locations in California and locations in Washington, Utah, Montana, Texas, and two locations in the People's Republic of China, we provide services globally.

**45+**
**YEARS OF PLACEMAKING AND DESIGN EXCELLENCE**

**10**
**REGIONAL LOCATIONS ACROSS THE WEST AND THE PACIFIC RIM**

**180+**
**MULTICULTURAL PROFESSIONALS**

**1K+**
**DESIGN AWARDS**



# PROJECT TEAM & QUALIFICATIONS



SOHAY | HAYWARD, CALIFORNIA

## PROJECT TEAM & QUALIFICATIONS

Your project team is comprised of active members who take a direct stake in the project progress and its ultimate success.

### PRINCIPAL-LED TEAM

For this project, Ritu Raj Sharma will serve as Principal-in-Charge and Project Manager, and will be the main point of contact and day-to-day manager. A project of this nature requires substantial collaboration between different parties along with swift decision-making, and our experience has shown that combining the Principal and Project Manager role greatly assists this process.

Lauri Moffet-Fehlberg will serve as Strategic Advisor for Multifamily Residential Architecture and Stephanie Fujimura will serve as Strategic Advisor for Civic Architecture. Ritu Raj, Lauri and Stephanie have collaborated on numerous projects from feasibility studies for infill sites to large scale master plans for both private and public sector clients.

This organization chart represents the Principal-level team members. The project will be staffed appropriately based on the needs of the tasks for each phase of the project.

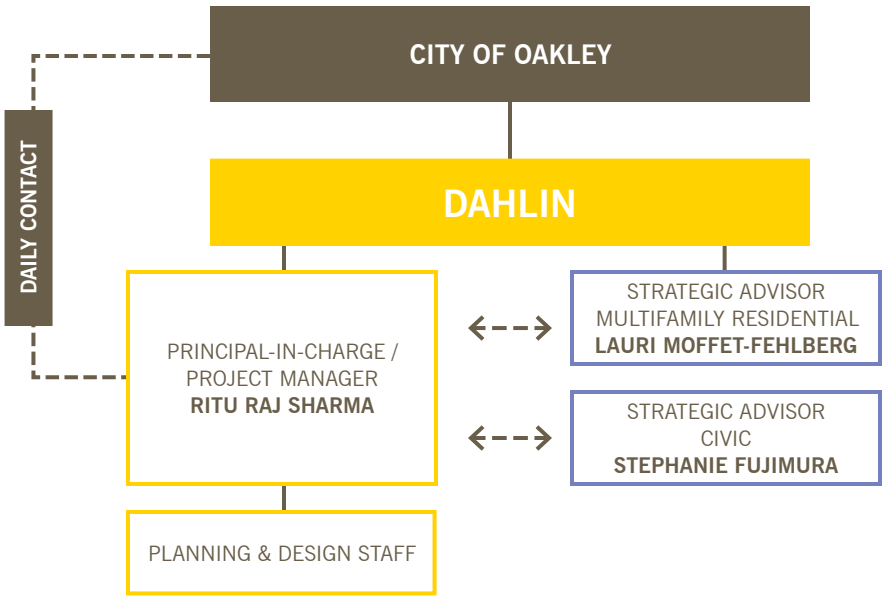
Please see resumes on the following page for further details on each of their relevant qualifications.

### ECONOMIC CONSULTANT

As noted in our Work Plan & Approach section, the financial analysis would be a Phase II for the project, dependent on the project vision and concept plan. Therefore, we have not included an economic consultant as part of the team for this submittal.

### SUBCONSULTANTS

As DAHLIN has the full capability to complete Phase I of this project using in-house resources, we do not anticipate the need to hire any additional subconsultants.



# RITU RAJ SHARMA AICP, LEED AP

Principal / Senior Planner

Ritu Raj Sharma is a dynamic urban designer with over 16 years of planning, urban design and architectural experience working with communities, private developers and public agencies. As leader of the planning team, he provides design and planning expertise on a wide scale of planning projects, including large master plans, urban mixed-use projects, streetscape plans, and design guidelines, encompassing issues of equity, community and urban design and open space.

Ritu Raj's projects are focused on placemaking, context sensitive design and creating consensus in the communities he works in. His familiarity with building typologies and densities, ability to convey issues of scale and mass, and knowledge of building and municipal codes brings rigor to the guidelines and standards he is involved with. His extensive involvement in these various planning projects spans the entire project lifecycle.

Through years of seeing numerous projects through from start to finish, Ritu Raj has developed a holistic perspective on the planning process, from which he actively draws insights for creating innovative planning and development strategies for better communities with a strong focus on sustainability. Several of these projects have received awards and industry recognition, such as the *Watson Ranch Specific Plan* in American Canyon, the *Duarte Station TOD Specific Plan*, the *University Villages Specific Plan* and the *Villages of Black Diamond Master Plan*.



### EDUCATION

MASTERS, URBAN PLANNING,
UNIVERSITY OF MICHIGAN

BA, ARCHITECTURE,
JADAVPUR UNIVERSITY, INDIA

### AFFILIATIONS

AMERICAN PLANNING ASSOCIATION

URBAN LAND INSTITUTE

SPUR

COUNCIL OF ARCHITECTURE, INDIA

### TRANSIT-ORIENTED + INFILL DEVELOPMENT

**Oak Park Specific Plan**
Pleasant Hill, California, USA
Contra Costa County

**SoHay (South Hayward) Master Plan**
Hayward, California, USA
City of Hayward/William Lyon Homes

**Blossom Hill Station Redevelopment**
San Jose, California, USA
Santa Clara Valley Transportation Authority

**Tamien Station Redevelopment**
San Jose, California, USA
Santa Clara Valley Transportation Authority

**Dumbarton TOD Specific Plan**
Newark, California, USA
City of Newark

### AFFORDABLE HOUSING

**Kottinger Gardens**
Pleasanton, California, USA
Mid Peninsula Housing

**Arroyo Green**
Redwood City, California, USA
MidPen Housing

**Pacific Ave Senior Housing**
Livermore, California, USA
Satellite Affordable Housing Assoc.

**The Meridian**
Santa Clara, California, USA\
CRP Affordable Housing & Community Dev.

**Stoddard West**
Napa, California, USA
Gasser Foundation/Burbank Housing

### PLANNING + COMMUNITY DEVELOPMENT

**Santa Cruz Downtown Master Plan Expansion**
Santa Cruz, California, USA
City of Santa Cruz

**Vacaville Residential Standards Update**
Vacaville, California, USA
City of Vacaville

**Amoruso Ranch Specific Plan**
Roseville, California, USA
Brookfield Sunset LLC

**Villages of Black Diamond**
Black Diamond, Washington, USA
YarrowBay

**The Dunes**
Former Fort Ord, Marina, California, USA
Marina Community Partners







# LAURI MOFFET-FEHLBERG AIA, LEED® AP

Senior Vice President - Architecture

Lauri has an innate ability, finely tuned by over 30 years of experience as an architect and planner, to be visionary in crafting memorable buildings, communities and places for people. Through her design and communication skills, she builds the bridge between the design vision, client needs and jurisdictional requirements to prepare an implementable solution. Many times, she is tasked with designing communities or buildings within the requirements of the governing documents she has written, and knows how to balance written standards with the envisioned, built outcome. As a painter, she brings her own artistic touch to each project and is able to translate multiple perspectives into cohesive, creative design solutions. Her focus on listening and understanding, design and Passion for Place® gives her deep insight into her clients' visions, goals, and objectives over the life of planning, urban design and architectural projects.



### EDUCATION

MASTERS + BA, ARCHITECTURE,
MONTANA STATE UNIVERSITY

### AFFILIATIONS

AMERICAN INSTITUTE OF ARCHITECTS, (AIA)

AMERICAN PLANNING ASSOCIATION, (APA)

MONTANA STATE UNIVERSITY, ARCHITECTURE ADVISORY BOARD

NATIONAL COUNCIL OF ARCHITECTURAL REGISTRATION BOARDS

URBAN LAND INSTITUTE (ULI)

### MULTIFAMILY RESIDENTIAL

**Avalon Bay Walnut Creek**
Walnut Creek, California, USA
AvalonBay

**The Cannery at Lewis Street**
Gilroy, California, USA
Meta Housing

**One Lake Fairfield**
Fairfield, California, USA
Meta Housing Corporation

**University Village**
Marina, California, USA
South County Housing

**The Meridian**
Santa Clara, California, USA
CRP Affordable Housing & Community Dev.

### MULTIFAMILY RESIDENTIAL

**Moongate Plaza**
Salinas, California, USA
MidPen Housing

**Mosaic on Mission**
Hayward, California, USA
Meta Housing

**Rosefield Village**
Alameda, California
Alameda Housing Authority

**Sweeney Lane**
Daly City, California, USA
MidPen Housing

**Stoddard West**
Napa, California, USA
Gasser Foundation/Burbank Housing

### MULTIFAMILY RESIDENTIAL

**Pacific Ave Senior Housing**
Livermore, California, USA
Satellite Affordable Housing Assoc.

**Arroyo Green**
Redwood City, California, USA
MidPen Housing

**Kottinger Gardens**
Pleasanton, California, USA
MidPen Housing

**Mission Paradise Senior Housing**
Hayward, California, USA
EAH Housing







# STEPHANIE FUJIMURA AIA, LEED AP

Principal - Senior Architect

As a leader of DAHLIN's municipal team, Stephanie has an extensive portfolio of civic and community projects. She is passionate about working with clients to understand and interpret their goals into built form. Her hands on knowledge in all project phases from planning to schematic design, construction documents to construction, and interior design contributes to her proven track record of helping municipalities achieve their project goals.

In addition to her public work, Stephanie Fujimura has experience in the private sector, including commercial, retail and office projects, both domestically and internationally. Stephanie adds value to projects by seeking methods to reduce waste and enhance building performance.

By developing efficient, cost-effective and sustainable solutions through using the latest technological platforms, she ensures the best building tailored to fit the clients' needs. Her experience harnessing BIM and REVIT ensures architectural design is translated into the final product and better outcomes through collaboration with consultants from project inception to opening day.



### EDUCATION

MASTERS, ARCHITECTURE
UNIVERSITY OF OREGON, EUGENE

### REGISTRATIONS

LICENSED ARCHITECT IN CA

LEED ACCREDITED PROFESSIONAL

AMERICAN INSTITUTE OF ARCHITECTURE (AIA)

CPRS MEMBER

### INSTITUTIONAL + MUNICIPAL

**Multi-Generational Center Needs Assessment**
Tracy, California, USA
City of Tracy

**Pleasanton Library Renovations**
Pleasanton, California, USA
City of Pleasanton

**Shannon Community Center**
Dublin, California, USA
City of Dublin

**Pleasant Hill Community Center**
Pleasant Hill, California, USA
Pleasant Hill Rec and Park District

**Dublin Senior Center**
Dublin, California, USA
City of Dublin

### INSTITUTIONAL + MUNICIPAL

**Aquatic & Rec Center - Project Manager**
Yucca Valley, California, USA
Town of Yucca Valley

**Mountain View Community Center Renovation**
Mountain View, California, USA
City of Mountain View

**Emerald Glen Recreation & Aquatic Center**
Dublin, California, USA
City of Dublin

**Wastewater Office Building & Corp Yard**
Castro Valley, California, USA
Castro Valley Sanitary District

**Bridgeyard Building Feasibility Study**
Oakland, California, USA
East Bay Regional Parks District

### RETAIL + COMMERCIAL + OFFICE

**The Promenade At Dublin Ranch**
Dublin, California, USA
Charter Properties

**Plaza At Dale**
Modesto, California, USA
City of Modesto

**Clubsport Pleasanton, (Remodel)**
Pleasanton, California, USA
Leisure Sports, Inc

**Renaissance Clubsport Aliso Viejo**
Aliso Viejo, California, USA
Leisure Sports, Inc

**Moraga Country Club**
Moraga, California, USA
Moraga Country Club HOA







## PROJECT EXPERIENCE

# DAHLIN has a record of success in architecture and planning, with extensive experience in both public facility and multifamily residential design.

Our collective body of work demonstrates a compelling exhibition of experience and expertise in project types including: urban design, infill and redevelopment, institutional and municipal, hospitality and fitness, retail, commercial and office, community amenities, multifamily and mixed-use, affordable housing, and senior living.

### PUBLIC + PRIVATE FEASIBILITY STUDIES

DAHLIN has assisted public agencies with due diligence on site feasibilities and studies to understand the development capacity of the potential development sites. Recent public agency clients include Contra Costa County, City of San Jose, Valley Transportation Authority, Oakland Housing Authority, and Alameda Housing Authority.

Many of our studies are for clients who eventually want to build on the site or issue an RFP. DAHLIN's initial studies have the necessary rigor and accuracy to be implementable, as they are based on years of experience designing housing and public facilities at all scales, and in all phases, from preliminary site studies to detailed construction drawings.

### PUBLIC FACILITIES

Our civic portfolio includes work on over 70 public facilities, including, senior centers, community centers, recreation centers, libraries and administration buildings. DAHLIN works with city councils and planning commissions as well as other institutional leaders, operators and managers to design sustainable, long-lasting, and vibrant institutional buildings.

### MULTIFAMILY RESIDENTIAL

Since 1976, our work has shaped much of the Bay Area's growth and development, delivering on over 200 multifamily housing projects across the region. Our experience includes market rate, for sale, for rent, affordable housing, senior housing and supportive housing. We design healthy, urban style communities where people want to live, providing design solutions that support diverse and connected environments, and adeptly navigate these projects through public meetings and presentations to approval.

*The following pages represent select examples of our most relevant project experience.*



**PACIFIC AVENUE SENIOR APARTMENTS**
**LIVERMORE, CALIFORNIA**

# MASTER PLAN WITH LIBRARY, RESIDENTIAL & PARK




## OAK PARK SPECIFIC PLAN

**PLEASANT HILL, CALIFORNIA**
**CONTRA COSTA COUNTY**

**Site:** +/-15 acres

DAHLIN assisted Contra Costa County in the planning and disposal of a 15-acre surplus property that the County owned within the City of Pleasant Hill. DAHLIN was initially hired to do a preliminary feasibility study but was retained to be the master planner for the entitlement process. DAHLIN developed a cohesive master plan that met the goals and the needs of the multiple public agencies that are involved, while also maximizing the financial returns to the County. The 15-acre parcel was subdivided into three main land uses, providing the City of Pleasant Hill a site for their new Library, the Pleasant Hill Recreation and Park District with new ball fields, and Contra Costa County with a residential development that was entitled by the County and disposed to the developer as a source of revenue for the County.

As the project lead for the County, DAHLIN worked on the overall master plan and wrote the Specific Plan for the overall project, while also developing and entitling the residential architecture for the County portion of the project. All the entitlements (Specific Plan, EIR Certification and entitlements for the residential portion of the project) were done concurrently, minimizing the time for permitting, and reducing potential conflicts.

DAHLIN

## SANTA CLARA VALLEY TRANSPORTATION AUTHORITY

SAN JOSE, CALIFORNIA/USA

DAHLIN is assisting VTA as they determine the feasibility and best long term use for their joint development parcels. DAHLIN is currently involved with multiple Joint Development Sites including Blossom Hill Station, River Oaks Site, the Tamien West Station Site, Great Mall Transit Area, Cerrone Site, and the Snell Station Site. As the master planning, land use and design consultant, DAHLIN has been involved with Visioning and Master Planning, Siting Studies, Capacity Studies and Community Outreach, as required for the above sites.

### BLOSSOM HILL STATION: CONCEPTUAL VISION



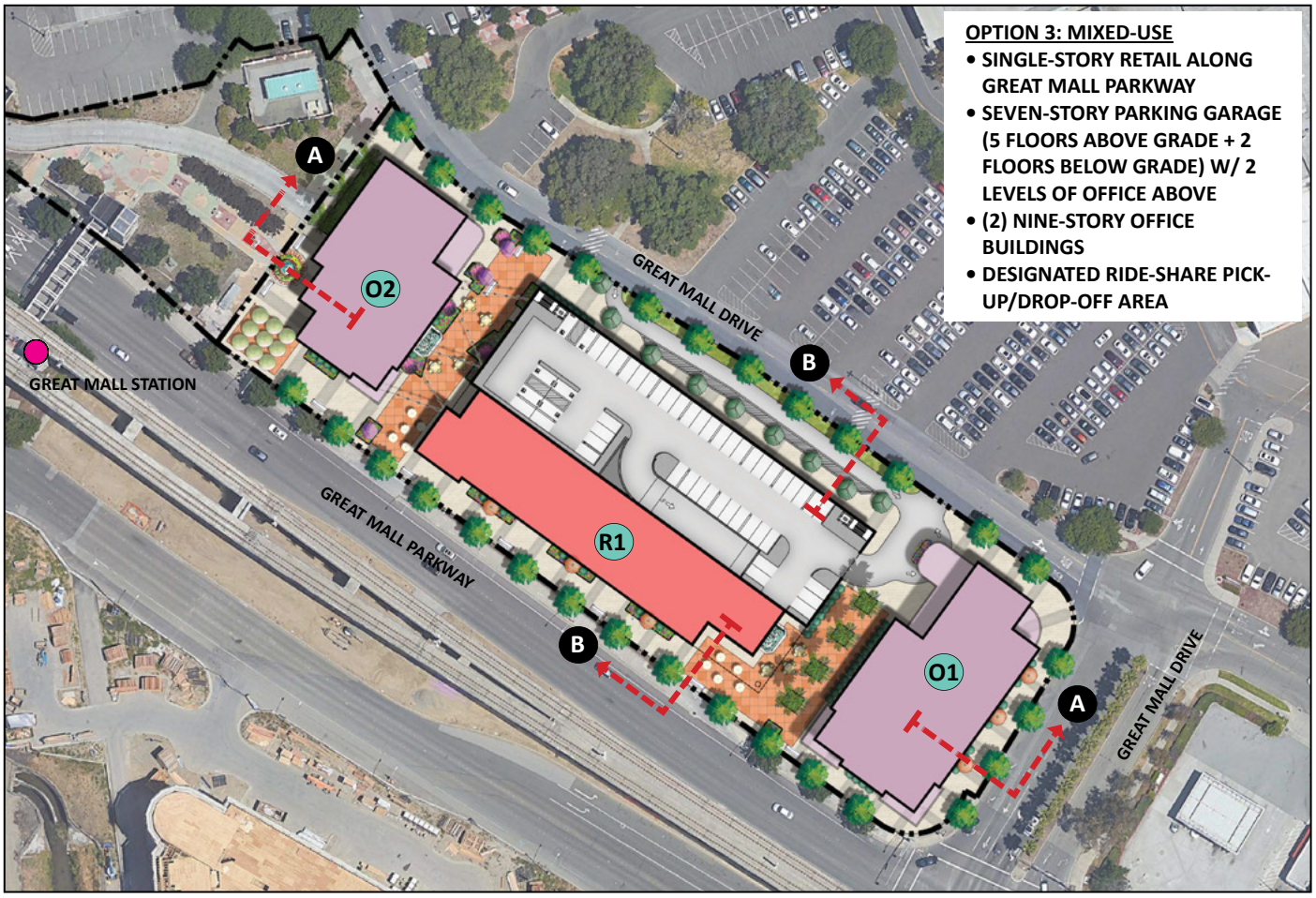

PHASE 1 PHASE 2 PHASE 3



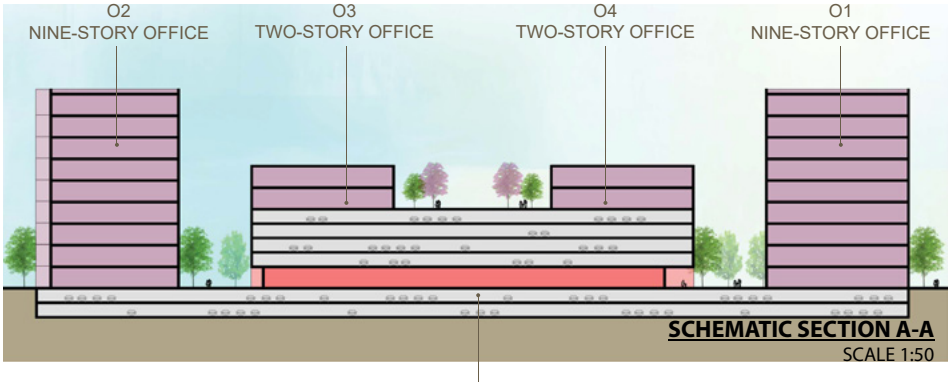
SCHEMATIC SECTION A-A

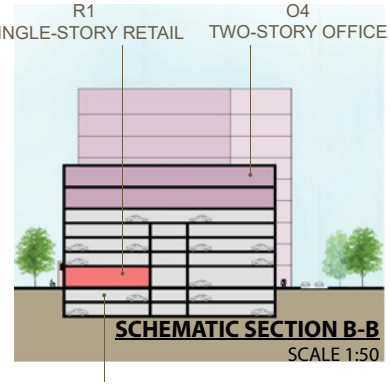
### BLOSSOM HILL STATION: COMMUNITY OUTREACH






**SITE PLAN: GROUND FLOOR**




## GREAT MALL TRANSIT STATION | MILPITAS, CA
SANTA CLARA VALLEY TRANSPORTATION AUTHORITY (VTA)

## FEASIBILITY STUDIES

# 2080 ALMADEN RD./2112 CANOAS GARDEN AVE

**SAN JOSE, CALIFORNIA**
**AFFIRMED HOUSING**

DAHLIN conducted feasibility studies to understand the development potential of the site for affordable supportive housing. The goal was to understand the development potential of the site as well as the development regulations, concessions and waivers required to meet the project goals. These graphics show a slightly enhanced version of the feasibility study, as the project was submitted to the City of San Jose for Preliminary Review of converting the low-density site into high-density housing with a mix of market rate and affordable housing. DAHLIN created an overall master plan and building plans.






# RACE STREET APARTMENTS

**SAN JOSE, CALIFORNIA**
**SANTA CLARA COUNTY HOUSING AUTHORITY**

This mixed-use community for family and senior affordable housing started with a feasibility study and is now continuing to detailed architecture.

Alvarado Park is a 90-unit senior affordable apartment development with studios, 1-bedroom and 2-bedroom units. Building will be on grade with an above-grade parking garage. Bellarmino Place is a 116-unit multifamily, mixed-use affordable apartment building with Studios, 1- 2- and 3-bedroom units, ~2,000 sqft of commercial space and above-grade parking garage.

# LIBRARY & PUBLIC FACILITY DESIGN



MOUNTAIN VIEW COMMUNITY CENTER | MOUNTAIN VIEW, CALIFORNIA

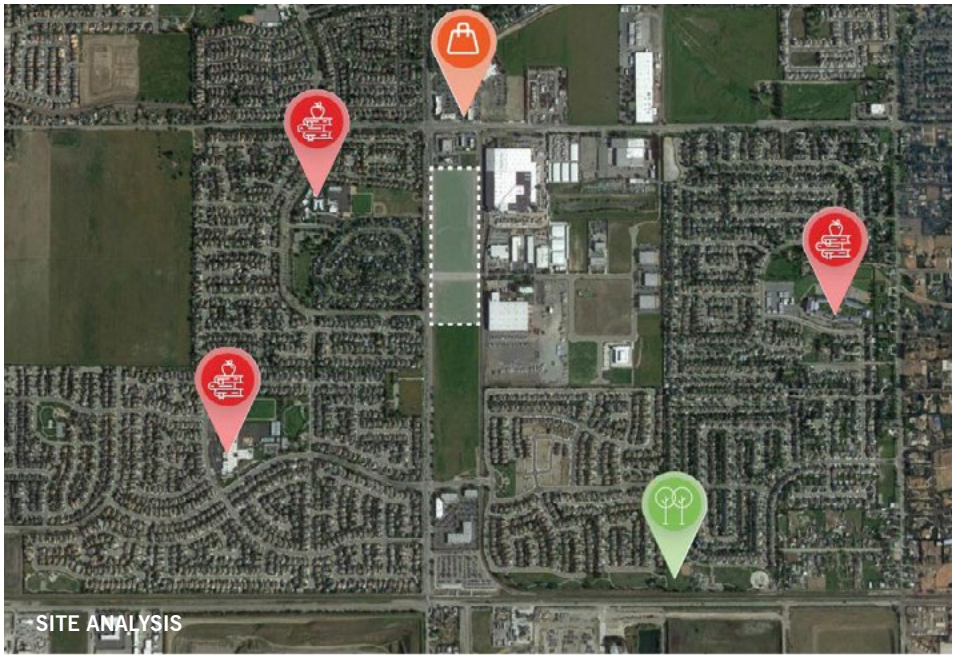
DAHLIN

# MULTI-GENERATIONAL RECREATION CENTER - NEEDS ASSESSMENT

**TRACY, CALIFORNIA / USA**
**CITY OF TRACY**

**Use / Type:** Institutional + Municipal

DAHLIN is working with the City of Tracy to perform a facilities needs assessment, site selection, and program analysis and conceptual plan design services for a new multi-generational community and recreation center and library. Program elements under consideration include a gym with 6 basketball courts, library, fitness room, senior center, youth center, multipurpose rooms, classrooms, administration offices, and event space. A large part of the assessment includes a series of public workshops, staff interviews, focus meetings, and online surveys. Estimated budget for the new facility is approximately $30M - $45M with public private partnerships and phasing options being considered.



SITE ANALYSIS





SITE LAYOUT OPTIONS



COMMUNITY OUTREACH

DAHLIN

# PLEASANT HILL COMMUNITY CENTER

**PLEASANT HILL, CALIFORNIA / USA**
**PLEASANT HILL RECREATION & PARK DISTRICT**

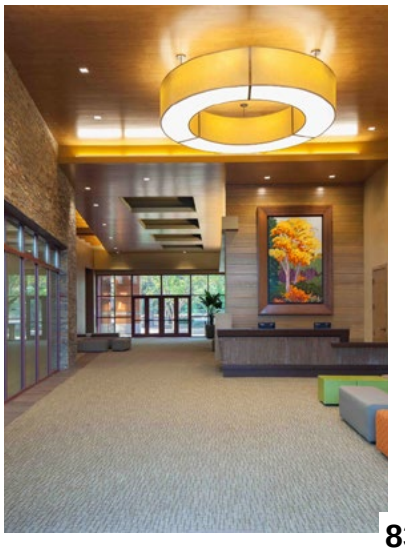
**Use / Type:** Institutional + Municipal
**Site:** 2.3 acres
**Building:** 21,990 sqft center

Designed as the beacon of the park, visibility and transparency were key design themes of Pleasant Hill's new community center. Architectural cues taken from the locale's agrarian heritage, blend traditional gables with crisp detailing and contemporary use of materials. The new facility replaces a 50-year-old structure with flexible spaces including multipurpose rooms, a banquet hall and preschool.









2014 CPRS AWARD,
EXCELLENCE IN DESIGN - FACILITY DESIGN

2014 CPRS D3 AWARD,
OUTSTANDING FACILITY

2012 GOLD NUGGET MERIT AWARD,
PUBLICLY FUNDED SPECIAL USE FACILITY, ON-THE-BOARDS

DAHLIN

# DUBLIN SENIOR CENTER

**DUBLIN, CALIFORNIA / USA**
**CITY OF DUBLIN**

**Use / Type:** Senior Living
**Site:** 2.3 acres
**Building:** 15,000 sqft center

Dublin Senior Center is a community and social resource for local seniors. The facility is organized into three major functions: a multipurpose/ dining hall with kitchen; lounge with central administrative spaces and building functions; and classroom spaces for arts and crafts, card playing, educational seminars and a computer resource center. Multiple patios flank the facility and serve as indoor/outdoor extensions of gathering areas. The Dublin Senior Center was developed in conjunction with the adjacent senior housing project and designed to meet LEED Silver specifications.









DESIGNED TO MEET LEED SILVER SPECIFICATIONS

CALIFORNIA PARK AND RECREATION SOCIETY AWARD, FACILITY DESIGN AND PARK PLANNING

DAHLIN

# SHANNON COMMUNITY CENTER

**DUBLIN, CALIFORNIA/USA**
**CITY OF DUBLIN**

**Use/Type:** Institutional + Municipal
**Site:** 2 acres
**Building:** 19,000 sqft center

Located in Shannon Park, the new LEED certified community center replaces the former facility at the same site. Accessed by a bridge crossing the maturely landscaped creek, this attractive community amenity also doubles as a rental venue for functions such as weddings. The building features a large event room, classrooms, administrative offices, a kitchen, and daycare facilities.









LEED-NC CERTIFIED

2009 CALIFORNIA PARK AND RECREATION SOCIETY AWARD, EXCELLENCE IN FACILITY DESIGN

DAHLIN

## AQUATIC & RECREATION CENTER - PROJECT MANAGER

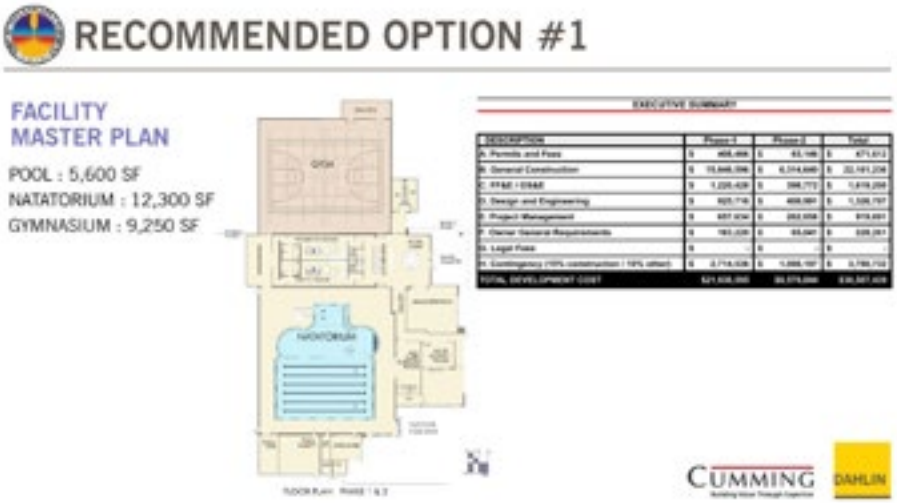
**YUCCA VALLEY, CALIFORNIA**
**TOWN OF YUCCA VALLEY**

**Use / Type:** Municipal Recreation Center; Aquatics

**Building:** 37,000 sf

DAHLIN is the Project Manager for the Town of Yucca Valley for their new Aquatic and Recreation Center. The 37,000 SF facility will include a natatorium, gymnasium, locker rooms, offices and multi-purpose rooms. DAHLIN is leading the town with project management from project initiation through the day 1 opening: site selection, programming, RFP preparation, RFP submission review & interviews, design overview, cost control, scheduling and construction oversight. After working with the Town team to verify the program goals, DAHLIN has prepared the "right-sized" program areas to meet the Town's needs and budget. We have also put together a conceptual design to convey the intent of the program adjacencies to the selected design team.






# PLEASANTON LIBRARY RENOVATIONS




*Photo By NapoliRoma - Own work, CC BY-SA 3.0https://commons.wikimedia.org/w/index.php?curid=21962484*

## PLEASANTON LIBRARY RENOVATIONS

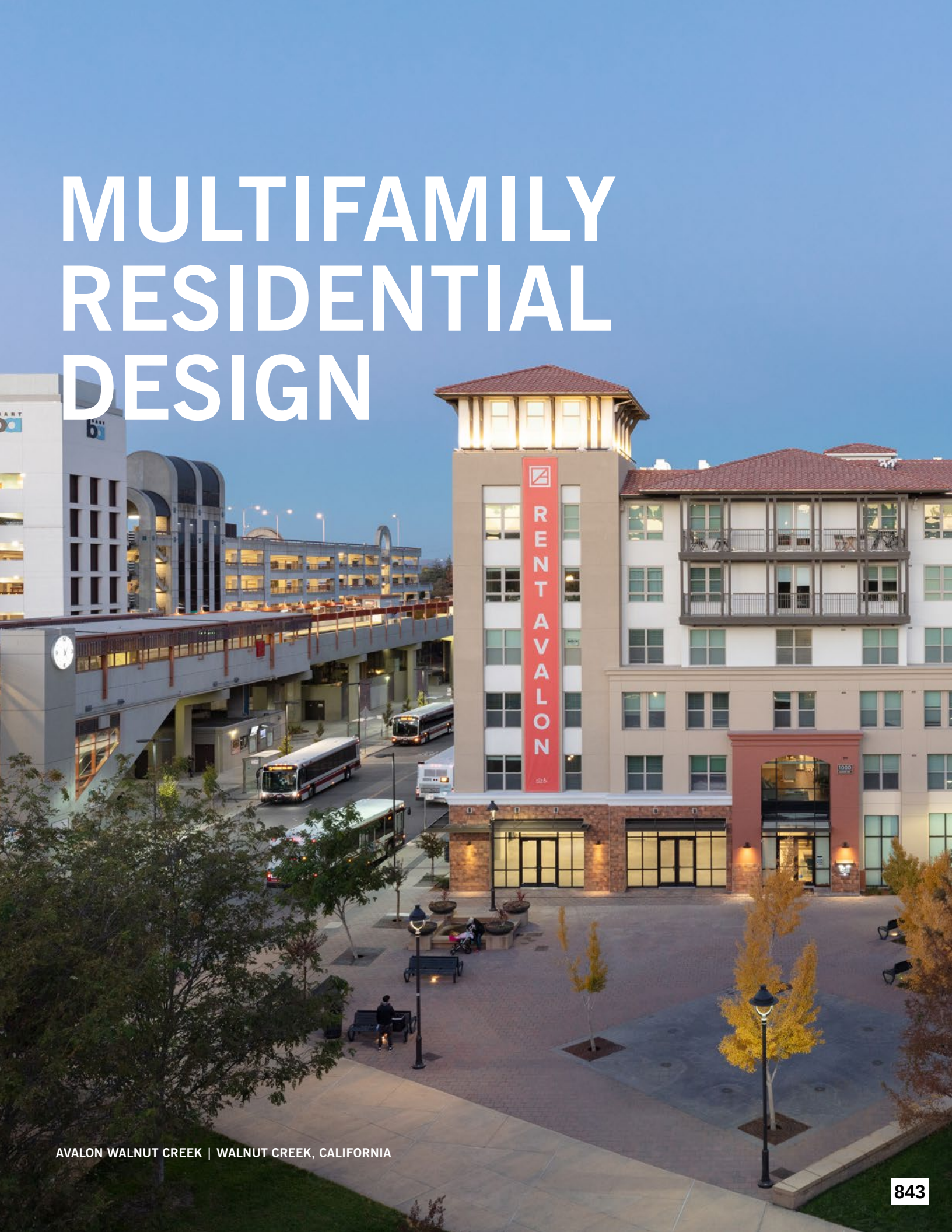
**PLEASANTON, CALIFORNIA**
**CITY OF PLEASANTON**

**Building:** 30,000 sqft

As part of on-call services for the City of Pleasanton, DAHLIN completed interior renovations of the existing library building including lighting upgrade and lighting controls replacement, all gender restroom ADA upgrade – finish replacement, accessory and sink upgrades, study room – modular furniture selection and finish upgrade, and upgrade of fire alarm control panel.

Exterior renovations include roof replacement, metal gutter replacement, clerestory window replacement and retinting, and identification and documentation of dry rot in anticipated construction areas for replacement.

# MULTIFAMILY RESIDENTIAL DESIGN




AVALON WALNUT CREEK | WALNUT CREEK, CALIFORNIA

DAHLIN

# AVALONBAY WALNUT CREEK II

**WALNUT CREEK, CALIFORNIA, USA**
**AVALONBAY**

**Type:** Urban Residential and Mixed-use

**Site:** 1.61 acres

**Building:** 351,717 sqft, 2,310 sqft retail podium building

**Density / FAR:** 124 du/ac

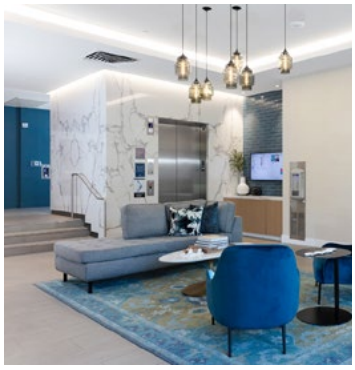
**Units:** 200

This mixed-use development of studio, 1, 2, and 3-bedroom units and retail space covers Block C of Avalon Walnut Creek at the Contra Costa Centre Transit Village. A retail street gateway and frontage along Harvey Drive highlights the BART transit station site and provides nearby residents with walkable access to BART and the surrounding community. Placemaking improvements such as street trees, landscape and pedestrian sidewalk improvements, and bicycle amenities all add to overall public benefit and encourage use of the Iron Horse Regional Trail, directly across the street.












DAHLIN

# SOHAY

**HAYWARD, CALIFORNIA, USA**
**TAYLOR MORRISON**
**CITY OF HAYWARD**

**Use / Type:** Community Planning; Mixed-Use; Condominiums, Apartments

**Site:** 25 acres

**Building:** 22,418 sqft ground floor retail

**Density / FAR:** 14 du/ac

**Units:** 352

Originally started as a project with the City of Hayward, this mixed-use neighborhood development was subsequently contracted to Taylor Morrison, who chose to continue work with DAHLIN. SoHay is comprised of property owned by Caltrans, HARD, BART, ACFC, and the City of Hayward. The development is part of the City's long term vision of transforming the underutilized Caltrans parcels into vibrant and sustainable neighborhoods. The mixed-use, mixed-density plan includes retail, cluster condominiums, apartments and a new park, and seamlessly connects disjointed parcels into a series of connected neighborhoods with a progressive, holistic approach to walkability, open space framework, neighborhood character, sustainability and contemporary architectural styles.








2022 BEST IN AMERICAN LIVING AWARD, BEST IN REGION FOR PACIFIC

2022 BEST IN AMERICAN LIVING AWARD, INFILL COMMUNITY, PLATINUM WINNER

2022 APA CALIFORNIA STATE AWARD OF EXCELLENCE, IMPLEMENTATION (LARGE JURISDICTION)

DAHLIN

# ENSO
# AT BAYPOINTE STATION

**SAN JOSE, CALIFORNIA, USA**
**FAIRFIELD RESIDENTIAL**

**Use / Type:** Urban Residential TOD

**Site:** 3 acres

**Building:** 4-story over concrete podium with underground parking garage

**Density / FAR:** 61 du/ac

**Units:** 183 apartments

**Unit Plans:** 593–1,270 sqft

Neighbors with San Jose's VTA Light Rail Baypointe Station and just blocks from major employers like Cisco and SanDisk, Enso is a transit-oriented, urban living residential community. This four-story podium building sits over an underground parking garage equipped with bike storage and parking designated for low emitting vehicles. Influenced by the architecture of nearby commercial and light industrial buildings, its contemporary design features extensive use of glass, corrugated metal siding, and standing seam roofs.







LIVING GREEN

LEED NC GOLD CERTIFIED
FAIRFIELD LIVING GREEN PROGRAM

DAHLIN

# DOWNTOWN KENMORE

**KENMORE, WASHINGTON, USA**
**MAINSTREET PROPERTY GROUP**

**Use / Type:** Multifamily and Mixed-Use; Apartments

**Site:** 9.6 acres

**Density / FAR:** 68-90 du/ac

Before incorporating in 1998, Kenmore was regarded as a pass-through suburb. After adopting a Downtown Plan in 2003, the City has assembled properties within the downtown totaling 9.6 acres. A second strategic planning process was engaged in 2012 to transform the combined properties into a recognizable downtown.

Along with substantial infrastructure improvements and civic projects, new urban residential housing, including **LINQ Lofts + Flats**, **Spencer 68** and **Flyway**, introduces over 500 units built or planned. The variety of housing types brings new energy and residents to the City as growth of the technology industry attracts tech-savvy millennials. In town living with highly-amenitized common areas fosters a hip urban lifestyle. **EvergreenHealth,** a primary care clinic that occupies the ground floor of The LINQ, provides accessible healthcare services to improve community wellness.

**Seaplane Kitchen + Bar** anchors the town square as the local restaurant hangout with additional commercial/ retail underway, intensifying the activity of this burgeoning downtown. The project represents the largest investment made at one time within the City and provides a true sense of identity and future economic development opportunity.

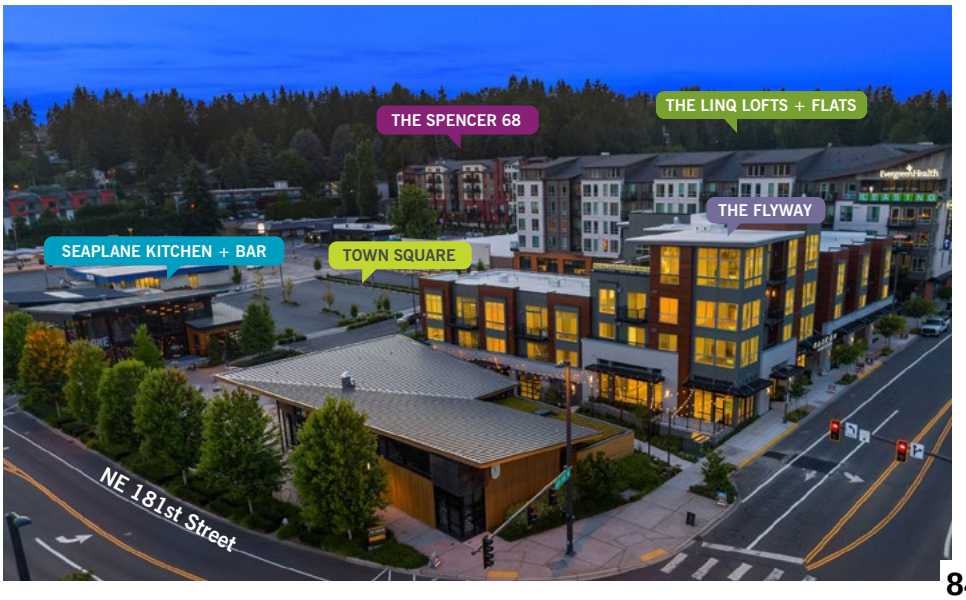










DAHLIN

# THE CANNERY AT LEWIS STREET

**GILROY, CALIFORNIA / USA**
**META HOUSING CORPORATION**

**Use / Type:** Affordable Housing; Apartments

**Site:** 4.94 acres

**Building:** 130,780 sqft

**Density / FAR:** 21 du/ac

**Units:** 104

Located in the heart of Downtown Gilroy at The Old Cannery District, The Cannery at Lewis Street is a 104-unit affordable apartment community with a contemporary style that includes a vocabulary reminiscent of The Old Cannery buildings. The developed has transformed the vacant 5-acre site into an active and welcoming community with a U-shape design and central courtyard that encourages community interaction and engagement.

Amenities include a community room, leasing center, exercise room, dining facilities, dog park, and other outdoor spaces. All parking is surface parking with around half the parking under carports.












2020 BEST IN AMERICAN LIVING GOLD AWARD, AFFORDABLE – MULTIFAMILY CATEGORY

DAHLIN

# ONE LAKE FAIRFIELD

**FAIRFIELD, CALIFORNIA / USA**
**META HOUSING CORPORATION**

**Use / Type:** Affordable Housing; Apartments

**Site:** 5.59 acres

**Building:** 267,492 sqft

**Density / FAR:** 34 DU/AC

**Units:** 190

One Lake Family Apartments is a four-story residential project with 190 units located in the One Lake Master Planned Community in Fairfield, California.

Designed to serve families, the new project provides 23 one bedroom units, 78 two bedroom units, and 89 three bedroom units. Two of the two bedroom units function as manager's units, the remainder are affordable rental units for tenants. The site is within Specific Plan Area 4 (the Lake District) of the Fairfield Train Station Specific Plan and is zoned as a residential very high density (RVH) district.








# REFERENCES



## KAREN LAWS

**PRINCIPAL REAL PROPERTY AGENT**

Contra Costa County

1220 Morello Avenue
Martinez, California 94553

**Phone**
925-957-2456

**Email**
karen.laws@pw.cccounty.us

**Related Project:** Oak Park Specific Plan (see page 11)




## JESSIE O'MALLEY SOLIS

**MANAGER OF TRANSIT ORIENTED DEVELOPEMENT**

Santa Clara Valley Transportation Authority (VTA)

3331 North First Street Bldg. A
San Jose, California 95134

**Phone**
408-321-5950

**Email**
Jessie.O'MalleySolis@vta.org

**Related Project:** VTA Feasibility Studies (see pages 12-13)



## MICHAEL BOITNOTT

**CIP MANAGER**

City of Dublin

100 Civic Plaza
Dublin, California 94568

**Phone**
925-833-6630

**Email**
michael.boitnott@dublin.ca.gov

**Related Project:** Emerald Glen Recreation & Aquatic Complex - planning, architectural and interiors services through construction administration.

# PROJECT UNDERSTANDING



## PROJECT UNDERSTANDING

The City of Oakley is taking a proactive approach to implementing a fiscally sustainable process for financing and eventually building the new library and associated community facilities.

As the City continues to revitalize the downtown area, a mixed-income residential project on City-owned property is to be developed to acquire funding for these public facilities, with the private residential development contributing all or a portion of the cost through the sale of the downtown property (O'Hara Block). To accomplish this, concept design plans and financial analysis of the sites with their respective public and private uses is the next step.

The proposed project is very similar to a project DAHLIN recently completed for Contra Costa County - the Oak Park Specific Plan. Consisting of a collaboration with the City of Pleasant Hill, the Park and Recreation District and the Contra Costa County, the project successfully allowed for the creation of a new library and ball fields, while also allowing for sale and disposition of excess land as residential development ensuring financial returns to the County.

The Oak Park project required extensive collaboration between the different agencies and an understanding of the needs of the different stakeholders. We anticipate that the Oakley Library and O'Hara Residential projects will require a similar collaboration between the different stakeholders.

### CRITICAL ISSUES

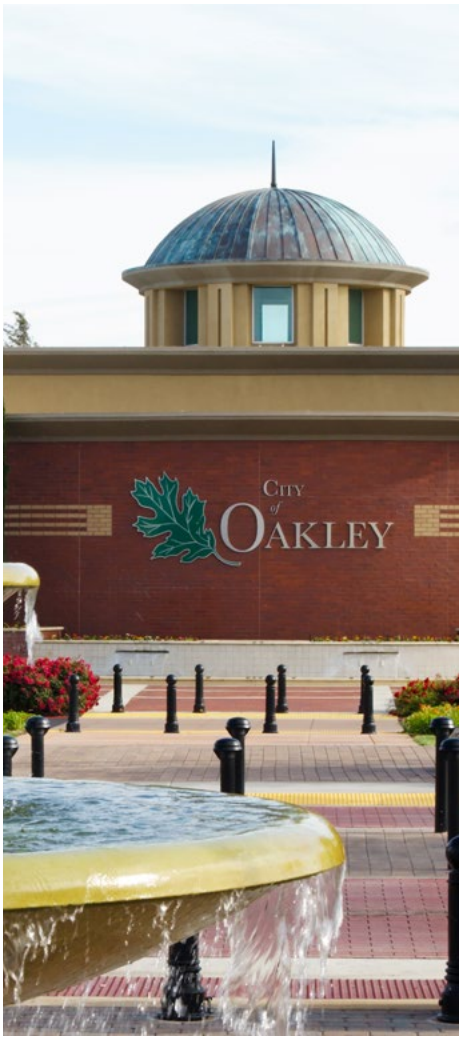
After review of the RFP, we have found that while the tasks and deliverables listed in the RFP are sound, the scope and the budget may not align. A project of this scope would require considerably more resources to complete. After a thorough review of the anticipated process, tasks and effort involved, it is our recommendation that the City finish the needs analysis and get a thorough understanding of the different design options before looking at the financing options. It is for this reason our proposed scope and budget only includes:

**Task 1:** Community Center Concept Plan

**Task 2:** O'Hara Block Residential Concept Plan

**Task 7:** Meetings

Once the design options have been determined, the design team can work with a City-hired economic consultant to assist on the other tasks listed in the RFP. Accordingly, an Economic Consultant is not included as a part of our team for this response. We believe that the resources would be better utilized at this point in time on a more focused approach.



# PROJECT UNDERSTANDING

## UNDERSTANDING THE DIFFERENT OPTIONS

For both the civic and the residential uses it is imperative that the City fully understand the spatial needs of the proposed uses:

### Civic Building

The civic building will include a minimum of three major uses (Library, Senior Center, Veterans Hall). The eventual size and the cost of the civic uses will depend on the final design and the amount of space allocated to the different uses, so it is important that the City analyze multiple options.

### Residential Site

Similarly, for the residential site, it is imperative that the City analyze development at different densities. Higher densities, while providing more units, may also be encumbered by the cost of structural parking and the cost of construction.

The site is also adjacent to a future train station so it offers a unique opportunity to promote the right kind of development. This will need to be balanced with the marketability of the proposed project to ensure maximizing the economic returns from the sale of the land. This approach would help ensure that the City makes a holistic review of all the options based on their needs without having to value engineer project components at the visioning stage.

## GETTING BUYOFF FROM KEY STAKEHOLDERS

A major civic undertaking such as this will involve many stakeholders, organizations and community interest. Therefore, it is important that the different options and the preferred concepts be vetted in a slightly larger setting, such as a study session with city council/planning commissioners, etc., so that there is a buyoff from the interested parties, and that there is continued support as the project moves forward.



**OAKLEY DOWNTOWN DEVELOPMENT CONCEPT PLAN**

# WORK PLAN & APPROACH




DOWNTOWN KENMORE | KENMORE, WASHINGTON

# PROJECT WORK PLAN & APPROACH

We recommend that the City first finish the needs analysis to get a thorough understanding of the different design options, then look at the financing options. It is for this reason our proposed approach only includes the Community Center Concept Plan, O'Hara Block Residential Concept Plan and Meetings. DAHLIN will work with the City staff to finalize this Work Plan:



## 1. Project Initiation / Project Management

DAHLIN will meet with City Staff to:

- Refine the work program
- Discuss the stakeholder participation approach and program
- Establish a definitive project schedule with work product and process delivery dates, including creating a regular meeting schedule for the duration of the project.

**Deliverable: Updated Work Schedule and Approach**

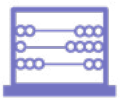


## 2. Review of Existing Documents, Program Analysis, Meetings with Primary Stakeholders

DAHLIN will review the existing regulating documents and the preliminary analysis of the library, and meet with the stakeholders regarding the proposed program. DAHLIN anticipates that the stakeholders at this phase would be limited to primarily the relevant City and County staff associated with the three proposed uses.

Based on the meetings with the stakeholders, the updated program will form the basis of design for the civic and the residential site plan options.

**Deliverable: Updated Program, meeting materials, agendas and notes.**



## 3. Site Plan Options

Based on the program developed, DAHLIN will create two (2) preliminary concept plans for both of the civic uses. Both concepts will include plan graphics overlaid over Google earth imagery to convey design intent, scale and response to context. Imagery and building sections will be provided as required to convey the design concept and intent. All deliverables will include the appropriate development summary and project statistics.

DAHLIN will review the concept plans with the relevant stakeholders. Based on the feedback received DAHLIN will prepare a preferred updated plan to reflect the comments.

It is anticipated that this preferred plan will be presented to the Planning Commission/City Council in a study session. The final design concept for each site will be based on the feedback received. Along with plan graphics the final deliverables will also include massing studies and imagery to convey architectural scale and character.

**Deliverable: Preliminary concept plans and development summaries, final concept plan and development summary, meeting agendas and notes.**



## 4. Meetings

DAHLIN anticipates the process to be a collaborative process with City staff and other stakeholders. DAHLIN anticipates the following meetings:

- Four (4) meetings with City Staff/City Liaison
- Three (3) meetings with Primary Stakeholder Group
- One (1) meeting with City Council/Planning Commission to solicit feedback.

**Deliverable: Meeting agendas, materials and notes.**

## City Staff Involvement

We anticipate that the City staff or their assigned representative will be the liaison between the consultant team and stakeholders. We also anticipate that the City staff or their assigned representative will provide us with a clear/summarized direction based on the fact that there will be multiple stakeholders with varied and sometimes conflicting needs or opinions.

# SCHEDULE

SEPT 30, 2023

| | JULY | | | AUG | | | | SEPT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Initiation / Project Management** | 1 WK | | | | | | | | | | | | |
| **Review of Existing Documents, Program Analysis, Meetings with Primary Stakeholders** | | 2 WEEKS | | | | | | | | | | | |
| **Site Plan Options** | | | | | | | | 10 WEEKS | | | | | |
| Preliminary site plan options | | | | 3 WEEKS | | | | | | | | | |
| Immediate stakeholder review | | | | | | | 1 WK | | | | | | |
| Preferred plan option | | | | | | | | 2 WEEKS | | | | | |
| Study session with PC/CC | | | | | | | | | | 1 WK | | | |
| Final design concept and graphics package | | | | | | | | | | | 3 WEEKS | | |
| **Meetings** | | | | | | | | | | | | | |
| Coordination meetings with City staff/liaison/primary stakeholders assumed to be part of the schedule above. | | | | | | | | | | | | | |
| 1 Study Session included in the schedule above | | | | | | | | | | | | | |

Note: Schedule anticipates kickoff on July 1. DAHLIN has the teampower and the skillset to address changes to schedule, and the schedule is based on anticipated review time by the City and the relevant stakeholders.




# DISCLOSURES & CONTRACT ACCEPTANCE

# DISCLOSURES AND CONTRACT ACCEPTANCE

## LITIGATION DISCLOSURE NARRATIVE 2018-2023

Dahlin Group, Inc. (hereafter DAHLIN), has been continuously insured for its professional services and has found that its insurance coverage has been more than adequate to respond to the claims asserted against it. There are no additional prior or ongoing incidents which has led to a consultant agreement being terminated prior to project completion.

In October 2019, DAHLIN received a Notice of Claim for the Deer Creek project in San Ramon, California by the project's subcontractor, Shoreline Builders, Inc. The Subcontractor filed suit against the Construction Manager, Client, DAHLIN, and Civil Engineer. The matter was dismissed without prejudice as to DAHLIN.

In February 2021, DAHLIN received a Notice of Claim from the City of Dublin for the Dublin Civic Center Expansion Project in Dublin, California. The City alleges deficiencies in the seismic load calculations depicted by the Structural Engineer and evaluation of existing conditions. As of May 2023, this matter is under discovery.

## DISCLOSURES AND CONTRACT ACCEPTANCE

DAHLIN requests for Article 1.2 to be revised to omit terms that elevate the industry standard of performance (standard of care).

> **1.2 Standard of Performance.** Consultant shall perform all services required pursuant to this Agreement in the manner and according to the standards observed by a competent practitioner of the profession in which Consultant is engaged in the geographical area in which Consultant practices its profession. Consultant shall prepare all work products required by this Agreement in a ~~substantial, first-class manner~~ manner consistent with this Standard of Performance and shall conform to the standards of quality normally observed by a person practicing in Consultant's profession.

DAHLIN requests for Section 5 to be revised to clarify indemnity provisions in alignment with California Civil Code(s).

> **Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES**. Consultant shall to the fullest extent allowed by law, with respect to all Services performed in connection with this Agreement, defend with counsel acceptable to the City, and indemnify and hold the City and its officials, officers, employees, agents, and volunteers harmless from and against any and all losses that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant ("Claims"). Consultant will bear all loses, costs, damages, expense and liability of every kind, nature and description ~~that arise out of, pertain to, or relate to~~ to the extent caused by Consultant's negligence for such Claims, ~~whether directly or indirectly~~ ("Liability"). Such obligations to defend, hold harmless and indemnify the City shall not apply to the extent that such Liability is caused by the sole negligence, active negligence, or willful misconduct of the City or any third party. Consultant shall only be required to reimburse Indemnities for defense fees and costs (including attorney's fees), in proportion to Consultant's proven acts of negligence and further, only to the extent such fees and costs were directly attributable to Indemnities' defense of a suit based on Consultant's negligence.
>
> With respect to third party claims against the Consultant, the Consultant waives any and all rights of any type of express or implied indemnity against the indemnities.
>
> However, notwithstanding the foregoing, in accordance with California Civil Code Section 1668, nothing in this Agreement shall be construed to exempt the City from its own fraud, willful injury to the person or property of another, or violation of law. In addition, and notwithstanding the foregoing, to the extent this Agreement is a "construction contract" as defined by California Civil Code section 2783, as may be amended from time to time, such duties of Consultant to indemnify shall not apply when to do so would be prohibited by California Civil Code Section 2782.

# COST + BUDGET PROPOSAL



WASHINGTON COMMUNITY SWIM CENTER | SUNNYVALE, CALIFORNIA

# COST + BUDGET PROPOSAL

Based on our experience on similar projects we have allocated the fees for each of the tasks listed in our scope of work. Since our proposal suggests a different methodology than the ones listed in the RFP, if awarded we will work with the City and their representative to provide detailed staffing, hours and tasks for each task and adjust accordingly.

| TASK | FEE |
|---|---|
| **REVIEW OF EXISTING DOCUMENTS, PROGRAM ANALYSIS, MEETINGS WITH PRIMARY STAKEHOLDERS** | **$10,000** |
| **SITE PLAN OPTIONS** | **$33,000** |
| Civic Site | $20,000 |
| Residential Site | $13,000 |
| **MEETINGS** | **$6,000** |
| Four (4) meetings with City Staff/City Liaison | |
| Three (3) meetings with primary stakeholder group | |
| One (1) or Two (2) meeting with City Council/Planning Commission to solicit feedback. | |
| **TOTAL FEE** | **$49,000** |

# PASSION FOR PLACE®

WWW.DAHLINGROUP.COM



PROPOSAL FOR:
OAKLEY LIBRARY AND O'HARA RESIDENTIAL PROJECTS

# DESIGN AND ECONOMIC FEASIBILITY STUDY

**Submitted by:**

URBAN FIELD + EPS + HKIT ARCHITECTS

# LETTER OF INTRODUCTION

URBAN FIELD

Patrick O'Keeffe
Special Advisor, Baker Tilley
pat.okeeffe@bakertilly.com

Joshua McMurray,
City Manager, City of Oakley
McMurray@ci.oakley.ca.us

May 31, 2023

Dear Mr. McMurray and Mr. O'Keeffe,

Urban Field Studio enthusiastically presents our proposal for the Library and O'Hara Residential Projects Design and Economic Feasibility Study. Urban Field Studio is teaming with Economic & Planning Systems (EPS) and HKIT Architects for this proposal.

We acknowledge receipt of the Request for Proposal with one addendum for the proposal due date, revised to May 31, 2023. Urban Field Studio is an urban design consultant team that specializes in the early stages of project exploration. We include HKIT for their expertise in public facilities and EPS for their understanding of development feasibility and public finance. The team we have assembled is targeted to this phase of the project with expertise in both public and private design and development.

The core proposal focuses on the site feasibility testing, planning-level costing, and review and update of the residual land value funding analysis. The scope of work at this stage is to work with the City of Oakley to advise on a strategy to make the result as realistic as possible. The intent is to create an approach that we can visually communicate to excite and delight the City Council and constituents for the City of Oakley. Additional optional tasks are also articulated related to exploring other funding options, developing an RFP, public outreach, and additional engagement with policy-makers.

For this proposal, Jane Lin, a founding partner at Urban Field Studio will be the authorized representative and principal contact. She has personally assembled the team and the proposal and is committed to finding the best possible solution given the resources available.

Thank you for considering our proposal. We look forward to hearing from you and hope that our services will be useful to you.

On behalf of the team,



Jane Lin
Founding Partner of Urban Field Studio
Designated Contact for the Team
510-207-9537
jane@urbanfieldstudio.com

# PROJECT TEAM

## URBAN FIELD

Urban Field Studio is a small urban design firm that will lead the Conceptual Design Team to reflect the development strategy desired by the City and in collaboration with EPS.



JANE LIN, AIA
Principal in Charge
Urban Field Studio



RYAN CALL, AIA
Design Principal
Urban Field Studio

HKIT ARCHITECTS

HKIT will provide design advising for public facilities as part of the Conceptual Design Team.

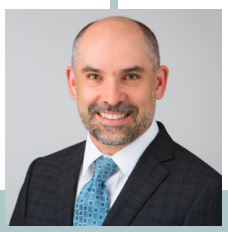
**THE CONCEPTUAL DESIGN AND FINANCIAL ANALYSIS TEAMS WILL WORK TOGETHER TO DETERMINE THE POTENTIAL FOR DEVELOPMENT AT THE AVAILABLE SITES.**



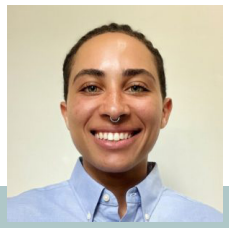
STEVE LOVELL
Public Facilities Design
HKIT Architects

EPS

EPS will lead the Financial Analysis for project.



TEIFION RICE-EVANS
Economist
EPS



BEX ALLEN
Research Analyst
EPS

## CONCEPTUAL DESIGN TEAM

**URBAN FIELD STUDIO**
Urban Field Studio is a collaborative team of urban designers that serve as consultants to both public and private sector clients. Urban Field Studio was founded in 2014 as a collaboration. Each partner is a principal level contributor and the firm operates on lean overhead.

We are not a typical architecture firm. Urban design, the public realm, and public facilities are our primary focus. We are driven to create places that communities treasure. We help cities explore the potential of the site and can stay on the City's team after future architects are selected to advocate for the design and vision that are part of this initial concept.

Urban Field Studio specializes in:
- Conceptual Design
- Development Strategy for reality-based planning and feasibility exploration

**Jane Lin, AIA, Principal-in-Charge**
Jane Lin works primarily with public clients on a wide range of urban design projects that span transit area planning, housing zoning, and special area plans (including campus master plans) for different scales of sites. She is an architect with a planning degree that specializes in the conceptual stage of development. Jane is a lecturer for UC Berkeley's Master of Real Estate Development + Design and Masters of City Planning programs. Jane is on the ULI Council for Public Private Partnerships.

**Ryan Call, AIA, Project Designer**
Ryan Call is an architect that joined Urban Field Studio after working for over twenty years at ELS Architects. His experience is primarily working with private clients to master plan mixed-use civic centers. Ryan has many strengths and his ability to design is strong due to his ability to listen carefully to the requirements that are implicit to the place.

**HKIT ARCHITECTS**
Urban Field is joined by HKIT Architects for their advice on designing for the public sector. Since 1948, HKIT Architects has worked on public projects in the Bay Area. The projects HKIT works on include multi-family, senior living, education, municipal and community projects. HKIT staff are experts on the design and construction process for public buildings.

**Steve Lovell - Architect, Community Facilities and Housing Expert**
Steve Lovell worked previously as the Design Director at Field Paoli Architects, where Steve and Jane met before joining HKIT. Steve's role on the Urban Field Studio team is to advise on the design of libraries, community centers, senior centers, civic land uses, and housing.

**THE CONCEPTUAL DESIGN TEAM IS QUICK AND NIMBLE AT GETTING TO A REALISTIC CONCEPT PLAN.**

**WE SPECIALIZE IN CONCEPTUAL DESIGN.**

**WE SET THE STAGE FOR FUTURE DEVELOPERS AND ARCHITECTS TO SUCCESSFULLY IMPLEMENT IDEAS.**

## FINANCIAL ANALYSIS

**ECONOMIC & PLANNING SYSTEMS, INC. (EPS)**
EPS is a land economics consulting firm experienced in the full spectrum of services related to real estate development, the financing of public infrastructure and government services, land use and conservation planning, and government organization.

EPS was founded on the principle that real estate development and land use-related public policy should be built on realistic assessment of market forces and economic trends, feasible implementation measures, and recognition of public policy objectives, including provisions for required public facilities and services.

Our inter-related areas of expertise include:
- Real Estate Economics
- Public Finance
- Land Use and Transportation
- Economic Development and Revitalization
- Fiscal and Economic Impact Analysis
- Housing Policy
- Public-Private Partnership (P3)
- Parks and Open Space Economics

**Teifion Rice-Evans, Managing Principal**
Teifion Rice-Evans will act as Principal-in-Charge for EPS leading the economic analysis efforts for the team. Teifion is a land use economist with close to thirty years of experience. He directs complex consulting assignments in the interconnected areas of real estate economics, public/private partnerships, public finance, and housing policy. Teifion has particular expertise in working on plans and projects with multi-agency and stakeholder involvement where a careful blend of economic, financing, and policy expertise is required to craft viable and supported paths forward.

**Bex Allen, Research Analyst**
Bex will serve as Economic Analyst. In this role, Bex will work with Teifion in conducting the residual land value analysis. As they have in other projects, Bex will conduct research into lease rates, development costs, and other economic factors. Bex joined EPS in 2022 and has performed real estate development and feasibility studies for public agencies in the San Francisco Bay Area and San Joaquin Valley. Prior to joining EPS, Bex worked at WSP, an engineering consulting firm. Bex holds a Bachelor of Arts in Urban Studies and Economics from Barnard College.

**EPS CAN PROVIDE RESIDUAL LAND VALUE ANALYSIS AND FUNDING ANALYSIS FOR THIS PROPOSAL.**

**EPS HAS PROVIDED OPTIONAL SERVICES AS WELL FOR ADDITIONAL PHASES.**

# EXPERIENCE



# EXPERIENCE

## RELEVANT CONCEPTUAL DESIGN PROJECTS

Urban Field Studio has worked with a wide range of clients from cities, to transportation agencies, and institutions. HKIT Architects experience with the design and construction of affordable and market rate residential and public facilities will complement the urban design thinking that UFS brings.

THE FOLLOWING PAGES INCLUDE PROJECT SAMPLES THAT HAVE BEEN CHOSEN TO ILLUSTRATE OUR DESIGN ABILITIES.

There is more to say about each project than what is contained in this brief format. We want to share how we adapt throughout the process of development, our approach to urban design, and how we strive to come up with solutions that are rooted in good urbanism ***and*** buildable. But, we figured that might be better discussed in an interview.

## RELEVANT FINANCIAL ANALYSIS EXPERIENCE

EPS has completed a broad range of residential market and development feasibility analysis for public, private, and not-for-profit clients throughout California.  Many have been directly tied to effort to support and revitalize downtowns, transit areas, and other infill locations through housing development, including opportunities for public-private partnerships involving public land, and support for Housing Element development. EPS also has an expansive practice in public finance, developing funding strategies for a broad range of public facilities and public/ private districts.

- Downtown Tracy Specific Plan
- Heart of Fairfield (Downtown) Housing Sites Feasibility Analysis
- Milpitas Metro Specific Plan
- Downtown Berkeley public/ private negotiations
- BART Site Analysis, Dispositions, and Negotiations

URBAN FIELD STUDIO

# ELK GROVE PROJECT ELEVATE

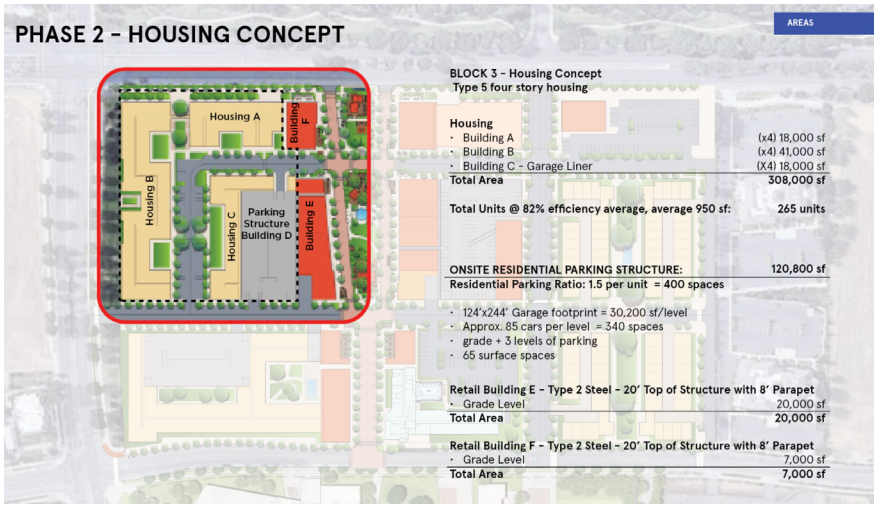
**Client:**
The City of Elk Grove

**Year Complete:**
2020

**Team:**
ELS Architecture and Urban Design (Led by Ryan Call while Director of Urban Design at ELS)
KMA
TBD Cost Estimators
Lifescapes International
Kimley Horn
Hoffman Strategy Group

**Contact:**
Christopher Jordan
Director, Strategic Planning and Innovation
City of Elk Grove
916.478.2222






The Project Elevate Master Plan for the City of Elk Grove, led by Ryan Call while Director of Urban Design at ELS, was created to establish a vision for a mixed-use entertainment district center adjacent to the City's newly built Aquatics Center and Community Center. The master plan vision was organzied around a central plaza lined by retail and restaurants. The vision was informed by a public outreach process, retail viability analysis, and economic viability analysis of the proposed development.

The master plan vision underwent a detailed cost estimation analysis for each block, product type, infrastructure costs and probable phasing. The master plan was then used for the basis of an RFP issued by the City for a public / private development opportunity which was awarded to Hines.

URBAN FIELD STUDIO

# BRENTWOOD INNOVATION CENTER

**Client:**
The City of Brentwood, CA

**Year Complete:**
2021

**Team:**
ELS Architecture and Urban Design (Led by Ryan Call while Director of Urban Design at ELS)
Kimley Horn
Hoffman Strategy Group

**Contact:**
Darin Gale
City Manager
City of Brentwood, CA
925.516.5440





The 200 acre Brentwood Innovation Center Master Plan reimagined a large area of undeveloped land adjacent to the freeway to bring jobs oriented development to Brentwood. The vision was based on market research for current trends in employment center development and financial incentives government agencies can use to attract them. The master plan implemented a mixed-use vision with an emphasis on recreational, public space and entertainment amenities. The site was interconnected by a framework of streets that tied to the existing urban fabric allowing these new amenities to serve both the new workforce population as well as the existing residents. Each parcel was tested for square footage capacities understanding the development economics would only support surface parking for commercial uses. The project resulted in City Council approving the vision and subsequently revising the specific plan for the area.

URBAN FIELD STUDIO

# DUBLIN SCS

**Client:**
The City of Dublin, CA

**Year Complete:**
2022

**Team:**
ELS Architecture and Urban Design (Led by Ryan Call while Director of Urban Design at ELS)
Urban Field Studio (public outreach)
KMA
Kimley Horn

**Contact:**
Amy Million
Principal Planner
City of Dublin, CA
925.556.4557



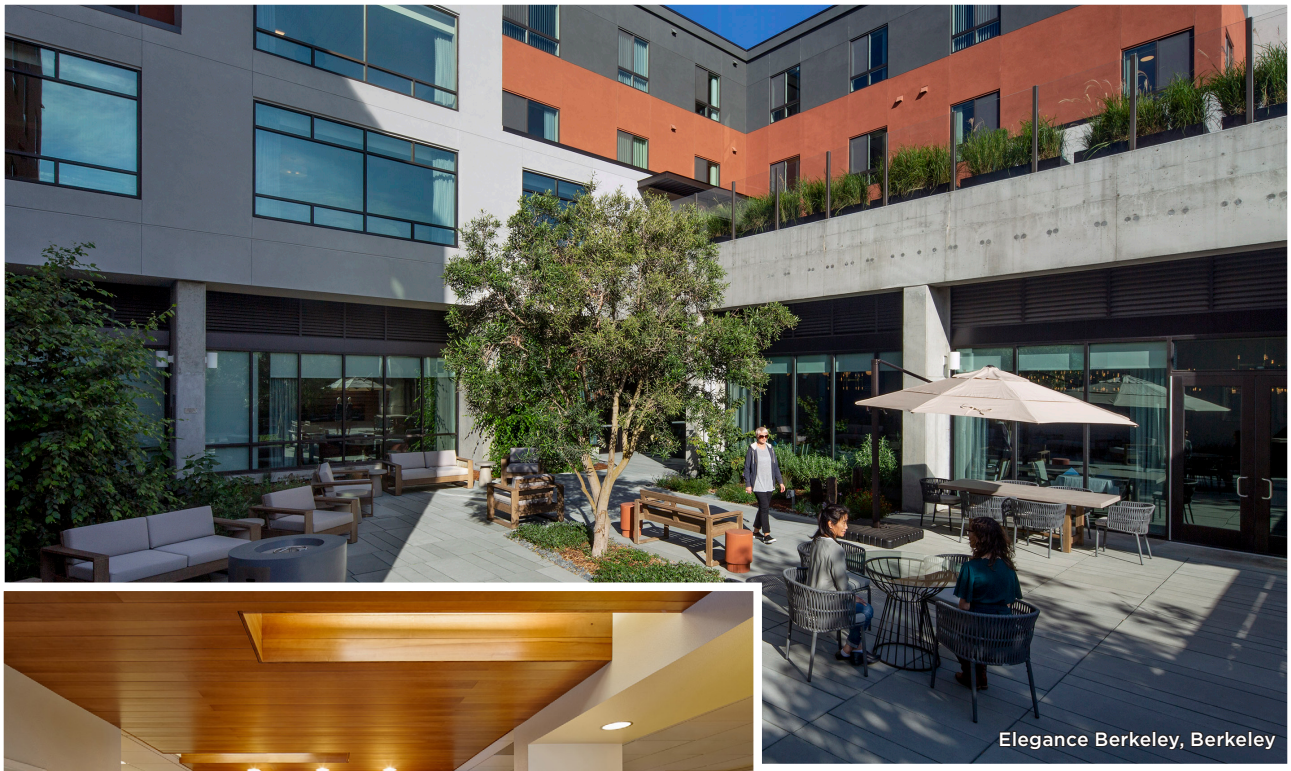







The Dublin SCS parcel is a privately owned parcel central to the east Dublin Development area. It had been originally planned as a regional shopping center but never materialized due to lack of demand. Following three failed proposals by the private sector, the City set out to establish a buildable vision that was informed by a robust community outreach process. The ELS / Urban Field Studio Team, led by Ryan Call and Jane Lin, facilitated an extensive community outreach process parallel to a collaboration with the landowner's development team. The community outreach focused on educating the community regarding the trade-offs required regarding the cost and construction of amenities and the necessary number and type of housing units necessary to fund them. The resulting plan was endorsed by the Community and Developer earning approval by the City Council.

## PROJECT EXPERIENCE: RESIDENTIAL



Elegance Berkeley, Berkeley



Lion Creek Crossings Phase V, Oakland



Paseo Estero & Vista Estero at Brooklyn Basin, Oakland




RESIDENTIAL

Casa de la Misión, San Francisco

# LIBRARIES & PUBLIC FACILITIES



Vineland Library, San Jose


Antioch HS Admin Building, Antioch



Mountain House Town Hall & Library, Mountain House


Piedmont HS Alan Harvey Theater, Piedmont


Piedmont HS STEAM Building, Piedmont


Almaden Branch Library & Community Center, San Jose

# RESUMES





## JANE LIN / FOUNDING PARTNER, AIA
## URBAN FIELD STUDIO

Jane is a licensed architect and urban designer with twenty years of experience working with municipalities and agencies in the San Francisco Bay Area and beyond. Her work includes urban design for streetscape improvements, transit area planning, revitalizing mixed-use districts, and supporting housing policy. Jane is a lecturer at UC Berkeley and teaches architecture to school aged students (K-12). It is important to Jane that large groups of non-designers become empowered with creative communication skills because they are the key to making our communities better.

### SELECT PROJECTS

COMPREHENSIVE PLANNING
Milpitas Metro Specific Plan, City of Milpitas*
San Jose State Campus Master Plan*
Downtown Dublin Vision, City of Dublin*
Dublin SCS Properties, City of Dublin*
North Hollywood Station Guide for Development, Metro Joint Development*
Old Town Newark Specific Plan, City of Newark*
Mission San Jose Commercial Strategy Study, City of Fremont*
Belmont Specific Plan, City of Belmont CA
Community Design Charrettes, Delta Planning Commission*
Coliseum Development Study, City of Oakland CA

DESIGN/ DEVELOPMENT STANDARDS AND GUIDELINES FOR MULTI-FAMILY HOUSING
Emeryville Objective Design Standards, City of Emeryville
San Leandro Multi-Family Design Standards, City of San Leandro*
San Pablo Avenue Specific Plan, City of Albany*
Irvington BART Station Area Plan, City of Fremont and BART*

ENGAGEMENT AND OUTREACH
* Projects with extensive engagement and outreach

TEACHING | Lecturer, UC Berkeley
ED 201 Master of Urban Design Studio
CP140 Urban Design and Placemaking
CP 208 Masters of City Planning Urban Design Studio

### COMMUNITY ACTIVITIES
ULI Urban Plan Juror, Facilitator, Curriculum Contributor, and Piedmont High School Champion
ULI Technical Assistance Panelist for the City of Dublin
Panel Discussion Organizer for the San Francisco Urban Film Fest
Piedmont Unified School District Facilities Steering Committee
Piedmont Arts Fund Chair and Piedmont Makers Board Member
Piedmont Racial Equity Campaign, Committee Member
Piedmont Housing Committee, Appointed Member

### EDUCATION
University of California, Berkeley
Master of City Planning with Concentration in Land Use, 2005

University of California, Berkeley
Master of Science in Architecture with Concentration in Building Science, 2005

University of California, Berkeley
Bachelor of Arts in Architecture, 1999

### CERTIFICATIONS
Licensed Architect in California

LEED AP - ND Leadership in Energy and Environmental Design Accredited Professional with a Specialty in Neighborhood Design

### ASSOCIATIONS
National League of Cities and ULI, Rose Center for Public Leadership, Faculty Advisor to the City of Tucson

ULI Associate Member
AIA East Bay Member
SPUR Member
SCUP Member

### PROFESSIONAL AWARDS
Artist-In-Residence Educator with LEAP Arts in Education
Eisner Prize in City Planning, UC Berkeley



## RYAN L. CALL / PARTNER, AIA
## URBAN FIELD STUDIO

With over 20 years of experience in planning and architectural design, Ryan has developed a particular expertise in master planning mixed-use urban communities with a focus on vibrant retail districts and public spaces. His primary interest lies in the strategic aspects of the design and development process where he has worked on a variety of projects from neighborhood shopping centers to regional shopping centers, to mixed-use multi-block districts. His presentation expertise has proven key to the success of many projects, especially during the critical public process and approvals phases.

### EDUCATION
Washington State University, 2001
Bachelor of Architecture

Syracuse University Firenze, 2000
Study Abroad - Urban Design

### CERTIFICATIONS
Licensed Architect in California and Indiana
Accreditation by NCARB

### ASSOCIATIONS
American Institute of Architects
ICSC
Urban Land Institute Full Member

**Projects completed while Ryan was the Director of Urban Design at ELS Architecture and Urban Design in Berkeley, CA.*

### SELECT PROJECTS*:

#### MIXED-USE MASTER PLANS
Downtown Dublin Vision, City of Dublin, CA
Dublin SCS Properties, City of Dublin, CA
Mueller Aldrich Street District, Austin, TX
University of Chicago 53rd Street District Mixed-Use Master Plan
Project Elevate, Elk Grove, CA
University Town Center East, Sarasota, Florida
Village of Merrick Park, Coral Gables, Florida
NewPark Mall Mixed-Use Specific Plan, Newark, CA

#### REGIONAL RETAIL CENTERS
Hillsdale Shopping Center North Block, San Mateo, CA
Stonestown Galleria Anchor Redevelopment, San Francisco, CA
HSC Mervyns Department Store Reconfiguration, San Mateo, CA
HSC South Block Facade Improvements + ATT Shell Design
Tucson Mall Anchor Redevelopment, Tucson, CA
Eastridge Shopping Center, San Jose, CA

#### PUBLIC OUTREACH AND EDUCATION
Downtown Dublin Vision, Dublin, CA
SCS Property Public Outreach, Dublin, CA
Latimer Square Public Workshop and Charette, Bloomington, IN
Telegraph Avenue Public Workshop and Charette, Berkeley, CA
Harold Way Workshop and Charette, Berkeley, CA

#### DESIGN GUIDELINES
Green Tree Mixed-Use Retail and Residential Guidelines, Vacaville, CA
Latimer Square PUD Design Guidelines, Bloomington Indiana

#### PROFESSIONAL AWARDS
AIA California Urban Design Award for Downtown Dublin
ICSC Gold Award for Hillsdale Shopping Center - San Mateo
ULI Apgar Award for 2015

#### COMMUNITY ACTIVITIES
Berkeley Design Advocates
Downtown Berkeley Association Volunteer - Former Board Member
Richmond Yacht Club Junior Program Volunteer



## STEVE LOVELL
**AIA, LEED AP**
**Senior Designer**

HKIT ARCHITECTS

Steve has worn many hats through the entire process of design, from concept through collaboration to construction. From designing libraries to high-end hospitality projects, Steve's career is focused on innovative, responsive and industry-spanning projects.

Steve has over 30 years' experience in architecture and planning. Prior to joining HKIT, Steve was a principal and Director of Design with Field Paoli Architects in San Francisco for two decades, preceded by a design career with Bull Stockwell Allen Architects.

### EDUCATION
- Master of Architecture, Massachusetts Institute of Technology
- Bachelor of Fine Arts, Massachusetts College of Art

### REGISTRATIONS, ACCREDITATIONS & AFFILIATIONS
- California Licensed Architect, Lic. # C 19321
- LEED Accredited Professional
- Member, American Institute of Architects

### SELECTED EXPERIENCE - EDUCATIONAL

**Jefferson Union High School District, Daly City, CA**
- Adult Education & District Office Building
- Jefferson High School New Pool & Aquatic Center Feasibility Study

**Orinda Union School District, Orinda, CA**
- Del Rey ES Modernization
- Glorietta ES Modernization
- Orinda Intermediate School Modernization
- Orinda Intermediate School Student Services Building
- Sleepy Hollow ES Modernization
- Sleepy Hollow ES MPR
- Wagner Ranch ES Modernization

**Sacred Heart Cathedral Preparatory School, San Francisco, CA**
- Student Life Center Renovation

### SELECTED EXPERIENCE - COMMUNITY CENTERS AND PUBLIC LIBRARIES
- Mountain House Town Hall and Library, Mountain House, CA*
- Mountain House Recreation Center, Mountain House, CA*
- Whitney Ranch Recreation Center, Rocklin, CA*
- Pleasanton Civic Center Master Plan, Pleasanton, CA*
- Emeryville Center of Community Life, Emeryville, CA*
- Mountain House Town Downtown Plan, Mountain House, CA*
- Almaden Branch Library & Community Center, San Jose, CA*
- Roseville Sports Center , Roseville, CA*
- Millbrae Library, Millbrae, CA*
- Vineland Library, San Jose, CA*
- Saratoga Library, Saratoga, CA*
- Belvedere Tiburon Library, Tiburon, CA*
- Mill Valley Recreation Center, Mill Valley, CA*
- Danville Library and Community Center, Danville, CA*
- Berkeley Public Library, Berkeley, CA*

### SELECTED EXPERIENCE - RESIDENTIAL/HOUSING/ MIXED-USE
- Nevin Plaza Rehabilitation, Richmond, CA
- Nevin Plaza Senior Housing, Richmond, CA
- Charities Housing Wetern Motel Affordable Hosuing, Santa Clara, CA
- Clos Du Lac Residential Community, Folsom CA*
- Shady Hill Residential Mixed Use, Pittsburgh, PA *
- Palladio at Broadstone-Eliot Homes, Folsom, CA*
- Montalcino at Napa Valley, Napa, CA*
- Inn at Spanish Bay, Golf Clubhouse, Pebble Beach, CA*
- Inn at Spanish Bay, Pebble Beach, CA*
- High Camp Resort, Squaw Valley USA, CA*
- Inn at Solitude, Solitude, UT*
- Park City Ski Resort Mountainside, Park City, UT*
- Taluswood Resort Housing, Whistler, BC Canada*
- Glacier Point Visitors Center, Yosemite National Park, CA*
- Orinda Country Club Master Plan and Concept Design, Orinda, CA*

* Project prior to HKIT



# Teifion Rice-Evans

## Managing Principal

### Education

Master of Arts in Economics, University of Cambridge, 1995

Bachelor of Arts in Economics, University of Cambridge, 1992

### Selected Lectures

2017 Economic Forum: Quality of Life, Economic Development, and Parks and Open Space

California American Planning Association 2016 Conference: The LA Waterfront

California American Planning Association 2015 Conference: Regional Collaboration, Competitiveness, and Prosperity

Association of University Related Research Parks 2011 Conference: New Models for Innovation

ULI Workshop: Real Estate Market and Feasibility Analysis, 2005

The Nature Conservancy, 2000 and 2002: Land Acquisition and Valuation

### Awards

California American Planning Association 2010 – South Fremont/Warm Springs Revitalization Plan

California American Planning Association 2010 – Paso Robles Purple Belt

### Affiliations

American Real Estate and Urban Economics Association

American Planning Association

### About

Teifion Rice-Evans is a land use economist with over twenty years of experience. He directs complex consulting assignments in the interconnected areas of regional economic development, real estate economics, public/private partnerships, and public finance. Teifion has particular expertise in working on plans and projects with multi-agency and stakeholder involvement where a careful blend of economic, financing, and policy expertise is required to craft viable and supported paths forward. Teifion works at multiple scales including at the small, urban infill site level, on transportation and park/greenspace corridors through multiple jurisdictions, and at the regional level on growth, transportation, and conservation plans.

### Selected Project Experience

**South Fremont/Warm Springs Revitalization and Community Plan**

EPS was hired by the City of Fremont to determine economically and financially viable paths forward in the wake of the closure of the joint Toyota/ GM NUMMI manufacturing plant. EPS worked closely with representatives from all levels of government and business to determine the prospects for economic and industrial development in the area and the critical opportunities and constraints. EPS then worked with the City staff and other consultants to develop a mixed-use development and revitalization plan that is now being implemented.

**Milpitas Opportunity Area Development Readiness Study**

EPS was hired by the City of Milpitas Economic Development Department to evaluate development prospects for seven of the City's General Plan Opportunity Areas, including the Manufacturing District South, adjacent to the TASP. EPS conducted market and development feasibility analysis and combined the findings with a review of Opportunity Area characteristics to inform City efforts to identify appropriate development strategies and policies. This work effort is ongoing.

**Milpitas TASP Financing Plan/ Impact Fees**

EPS worked with the City to develop the first TASP financing plan and development impact fee schedule to fund TASP infrastructure and public improvements. EPS also worked on updates in 2012 and 2014 and is currently working with City staff to identify appropriate interim TASP fee increases.

**LA Waterfront Revitalization Evaluation Fees**

The City of Los Angeles and the Port of LA have embarked on a large effort to revitalize the LA Waterfront and attract new creative office, residential, retail and entertainment uses to the waterfront. EPS has conducted several studies for these clients to help identify market-supported uses, feasibility challenges, and engage with developers concerning opportunities on different sites.

**Downtown Berkeley Streets and Open Space Financing Plan**

EPS developed a financing plan for the City of Berkeley's innovative Downtown Streets and Open Space Improvement Plan (SOSIP), a complementary document to the City's Downtown Area Plan. The SOSIP envisioned a range of improvements aimed at developing a network of complete and green streets in the downtown.



### Education

Bachelor of Arts, Economics and Urban Studies, Barnard College, 2021

### Employment History

Assistant Consultant,
WSP USA,
New York, NY

# Bex Allen

Research Analyst

**Bex Allen** joined Economic and Planning Systems, Inc. (EPS) in the Summer of 2022. Before joining EPS, Bex worked at WSP, an engineering consulting firm where they supported work on transportation planning and financing projects as well as workforce development research.

## SELECTED PROJECT EXPERIENCE

### SAN JOAQUIN VALLEY INCLUSIONARY STUDY

As part of the San Joaquin Regional Early Action Planning Program (REAP), EPS conducted a study on the potential for inclusionary zoning to help Valley cities increase their affordable housing supply. As part of this effort, EPS evaluated existing inclusionary programs in the Valley and explored its feasibility in additional case study cities. Based on market data, development feasibility analysis, and discussions with city staff, EPS identified potential opportunities and constraints for inclusionary zoning across the Valley.

### OAKLAND GENERAL PLAN UPDATE

As the City of Oakland plans for the future, City decision makers want to ensure the General Plan reflects the City's strengths and opportunities and addresses the key challenges facing the city. EPS prepared an economic market assessment of existing conditions in the City to inform the land use alternatives that will be considered as part of the General Plan update process. Additionally, EPS prepared a study specific to Oakland's Industrial lands that assessed the constraints and opportunities facing the city's industrial sector.

### BELMONT FISCAL IMPACT ANALYSIS

EPS conducted a detailed fiscal impact analysis of a proposed biomedical office project in Belmont, California. Using fiscal modeling techniques, EPS estimated the proposed project's impacts on the city's public service expenses as well as revenues, namely property tax.

### VTA PORTFOLIO VALUATION

For the last 12 years, EPS has been working with the Valley Transportation Authority (VTA) on a variety of real estate and joint development topics. Recently, VTA enlisted EPS to evaluate VTA's properties portfolio and forecast future revenue from real estate assets. EPS researched market conditions for residential, retail, office, industrial and hotel use in the development area and reviewed comparable land sales. EPS also estimated the residual land value of each development site by preparing pro formas for several development scenarios.

Economic & Planning Systems, Inc.
*The Economics of Land Use*
www.epsys.com

1330 Broadway, Suite 450, Oakland, CA 94612 510 841 9190 ballen@epsys.com

# REFERENCES

### KEVIN RILEY, MILPITAS METRO PLAN MANAGER

kriley@milpitas.gov

Kevin Riley, a former Santa Clara Planning Director, can speak to the ability and effectiveness of Jane as a project manager and urban designer. Jane Lin worked closely with Kevin Riley as the prime consultant for the Milpitas Metro Specific Plan.

Economic & Planning Systems, inc. (EPS) and Teifion Rice-Evans were a subconsultant to Jane and UFS on the Milpitas Metro Specific Plan study. EPS also worked with Kevin Riley to conduct real estate market and development feasibility analysis in support of plan development, including assessing the economics of a range of new housing products.

### HAZEL WETHERFORD, ECONOMIC DEVELOPMENT DIRECTOR

hazel.wetherford@dublin.ca.gov

Urban Field Studio and ELS Architects (Ryan Call, Principal) provided a Vision for Downtown Dublin (that won an AIA Honor Award for Urban Design). The team first started on the ULI Technical Assistance Panel for the project, then selected to work with City Staff and City Council to develop the Vision. The vision for Downtown Dublin is a master planned, mixed-use, transit-oriented, walkable neighborhood. The team is currently working with the private landowner, their development partners, and design team to guide development. The team included economists, Keyser Marston Associates, retail specialist, Christine Firstenberg, and BKF Engineers.

Hazel Wetherford can speak to the Jane and Ryan's effectiveness working with the City Council, City Manager, and Economic Development Department Staff on the approach to the project.

### SCOTT CLAAR, SENIOR PLANNER, CITY OF TRACY

scott.claar@cityoftracy.org

Economic & Planning Systems, inc. (EPS) and Teifion Rice-Evans recently completed a detailed real estate market and feasibility study in support of the City of Tracy's Downtown Specific Plan. An important part of the work effort was to assess the viability of new residential development in Downtown Tracy of a set of potential sites that varied in size and potential densities.

# PROJECT APPROACH



# PROJECT UNDERSTANDING

We acknowledge the work that has been prepared before in terms of the economics for site redevelopment and the public private partnership approaches considered. We received the Management Partners memo dated August 22, 2022, on the subject "Summary of Background Materials Reviewed and Initial Feasibility Analysis for Oakley Library Mixed-Use Project." This memo provides the background information to be built upon in this project.

We see the tasks for this project primarily include Conceptual Design primarily, and supporting economic feasibility analysis for the opportunity to develop a new Community Center/ Library and bring new housing to the City's downtown. We see that there is an opportunity to transform two downtown sites in an interconnected manner.

Specifically, the City is considering selling its O'Hara Block site to a residential developer to bring new mixed-income housing downtown and then investing the land sale proceeds into the development of the Community Center on a separate parcel.

The initial analysis has indicated promise to this concept, though the City is now looking for design and economics expertise and support to further test the concept. The additional analysis will provide a more detailed testing of the concept in order to: (1) ensure funding concept is sound; (2) support further input from City policymakers and stakeholders on the topics of community center scale, housing options, and overall funding strategy; and, (3) support City discussions with the State Housing and Community Department (HCD) concerned public lands disposition under the State Surplus Lands Act.

Based on the RFP and subsequent communications from the City and its advisors, we understand that the core tasks of this proposal should focus on reviewing and refining the "high density residential development concept" on the O'Hara site, the community center concept on the City Hall site, and the development economics analysis that provides an indication of the potential City land sale revenues. A comparison of the potential land sales revenues with planning-level costs of Community Center concept development costs will then allow the City to make informed decisions in terms of preferences and funding strategy. It will also the City to articulate the importance of the City parcel disposition to the HCD. The Consulting Team also notes additional tasks in the RFP that it could support, as appropriate, as optional tasks.

# SCOPE OF WORK

The proposed project includes Project Management, Conceptual Design, and Financial Analysis. The majority of the work plan is the Conceptual Design.

The Elements of the Study in the RFP listed many design and economic development tasks. Given the timeline desired and the budget, the following tasks are included in the proposed fee with other desired elements identified as additional or optional for the future.

## 1. PROJECT MANAGEMENT

The project includes Project Management given a 3 month time frame, if the desire is to complete before September 31st.

## 2. CONCEPTUAL DESIGN

### A. DEVELOPMENT STRATEGY MEETINGS

We begin with a 2- hour all hands development strategy meeting to make sure we are all on the same page and to bring a few questions and ideas to the table to determine where we may begin exploring. We follow up mid-way to check in with staff and then at the end to present to the staff team.

### B. SITE TESTS/DEVELOPMENT CONCEPTS

The Scope of Work includes development concepts that result from physical feasibility tests for two sites and two iterations of each site. Our design methodology utilizes a draft presentation, whiteboard sessions, and architectural modeling that is coupled with a spreadsheet of development counts.

- Deliverables include a conceptual sketch of the site layout (plan) and three dimensional massing, but not architectural or schematic design. Massing may have some features to make the blocks look more like buildings, but will not include any finer detail.
- Development Concepts will include land uses, their location, and high-level assumptions about programming. The site tests will yield estimated areas (gross square feet and net rentable area), building massing (height, stories, floor plate assumptions), number of units, size of units, number of parking spaces and type.
- The process will be presented in a digital format for an expert audience only.

Development Concepts expressed through site tests must follow critical decisions about key design factors including targeted size and counts for plan components, environmental constrains, circulations, and amenities that are desired for the site.

The iterations of the site tests may be determined by the whole team, but would likely be:

- An iteration of each site that follows the previous research performed
- Another iteration of each site informed by the development strategy d.etermined by the team.

## OPTIONAL DESIGN TASKS

**More Iterations and Sites**
If more iterations are desired they can be added as additional scope.

**Renderings**
Should the City want to provide something more polished, the models can be used as a base for an illustrated concept. This could be a step after the development direction is more established.

***The Scope of Work is exploration with City Staff only. Preparation of the site tests to be presented to any policy makers or the general public is an optional additional task.***

**Engagement with Policy Makers**
We have worked in the past with City Council members in Regular Meetings, Special Sessions, Workshops, or Tours to more closely involve and share our assumptions and recommendations about next steps for opportunity sites.

**Public Outreach**
One of our strengths and specialties is public engagement. If there is a desire to share this with the community, we can design engagement to inform and collect feedback through surveys, community meetings, workshops, and through video. We can make websites, fliers, infographics, and write copy for press releases to accompany any of the graphics we produce.

**Public Facility Specialists**
We know a network of specialist consultants to help us with the next step of implementation. The specialists we know include library/community center, affordable housing, station design, traffic engineers, civil engineers, and placemaking designers.

**Design Advocates**
We can help represent the design interests of the City if implementation in later stages of the project. We can serve as development reviewers to ensure the project continues as desired from the outset.

# 3. FINANCIAL ANALYSIS

## A. RESIDUAL LAND VALUE ANALYSIS

The Residual Land Value analysis will provide new estimates of the expected residual land value of the O'Hara Block and hence its ability to cross-subsidize the development of the Community Center as part of the public-private concept. Key components of this work effort will include:

**Residential Development Program**

The Site Testing analysis coupled with City staff direction (based on their conversations with City Council) will allow for the specification of the maximum potential residential development project. This development program (and potentially a second smaller option if appropriate) will be a key component of the residual land value analysis. EPS will confer with UFS and City to ensure it is reflecting the potential residential development program(s) appropriately.

**Planning Level Development Costs**

Planning-level development costs for the residential development project will be developed including:

- Planning level estimates of direct construction costs for the residential building and parking will be based on Consulting Team experience working with residential developers on other projects as well as a review of "cost books", such as Marshall & Swift.
- Soft costs, including architecture and engineering, marketing, construction financing, and general administration, will be based on typical percentages of hard costs.
- Approximate estimates of impact fees will be derived from the City's fee schedule and conversations with City staff.
- Recognizing recent volatility in costs, two cost scenarios may be developed to support sensitivity testing.

**Rental Revenues**

Expected market rate rental revenues will be based on research of current rents at other multi-family apartment buildings of a similar nature in locations with similar characteristics. Distinctions will be made for expected rents for apartments with different numbers of bedrooms. The below market rate rents will be based on the appropriate income limits consistent with the proposed affordability level.

**Hurdle Rates (Yield on Cost or Capitalization Rates)**

Hurdle Yields and Capitalization Rates have been increasing recently due to rising interest rates and other economic factors. Based on other projects and available data sources, two sets of returns will be developed including a baseline set reflecting current market expectations and a moderated set for sensitivity testing that might be expected in the near-future.

**Residual Land Value Analysis**

The prior subtasks will together allow for the development of a complete residual land value analysis (table set) and the estimate of the expected land value. Sensitivity analysis will also provide an indication of the potential range of land values.

**B. FUNDING ANALYSIS**
The Consulting Team will bring together the findings of the site test analyses, planning-level cost estimates, and residual land value analysis to draw conclusions on the ability of the residential parcel sale to fully or partially fund different community center concepts. These conclusions will help City staff, stakeholders, and policymakers consider preferred paths forward, the potential role of land sales in the financing strategy, and whether additional funding gaps are expected under different scenarios. Any funding gaps could be broadly considered in light of the public facilities fee reserves and to what extent they would require additional action/ funding from other sources. EPS will provide a consider technical memorandum summarizing the residual land value analysis and the conclusions of the funding analysis

## OPTIONAL FINANCIAL ANALYSIS TASKS

The residual land value analysis update reflects the key economic aspects requiring additional study. Additional tasks that the funding/ financial tasks the Consulting Team could undertake include:

**Additional Research and Assessment of Other Funding Sources.**
This work effort would build on the work incorporated in the Baker Tilly analysis and consider options for filling any funding gaps identified. This would include, but not be limited to, considerations of impact fee revenues (and potential adjustments), EIFDs, other special district financing, and State and federal funding opportunities.

**Community Center Financing Plan.**
To the extent land sale proceeds from the residential site may not cover the full costs of the community center, the Consulting Team could work with City staff, building off the additional research of other funding sources, to develop different funding strategies and associated strengths and weaknesses for City consideration. A preferred strategy and financing plan could then be identified.

**RFP Support Services**
If appropriate and at a later stage in the process, the Consulting Team could support City staff and advisor efforts to develop an RFP for the residential site and support other aspects of the potential disposition process.

# SCHEDULE

The following schedule is proposed given assumptions about when the contract will start on June 13th and the desire to complete before September 31st. The schedule may be extended by Staff as needed but can not be shortened.

| | 2023 June | 2023 July | 2023 August | 2023 September |
|---|---|---|---|---|
| **1. Project Management** | ✪ | ✪ | ✪ | ✪ |
| | | | | |
| **2. Conceptual Design** | | | | |
| A. Development Strategy Meetings | ✪ | | | |
| B. Site Tests/Development Concepts | | ✪ | ✪ | |
| | | | | |
| **3. Financial Analysis** | | | | |
| A. Residual Land Value Analysis | ✪ | ✪ | ✪ | |
| B. Funding Analysis | | | | ✪ |

## SCHEDULE NOTES

1. Project Management.
- Once the contract begins, a standing weekly meeting will be set with the City of Oakley Staff team through September 31st, 2023 or three months. Additional time may be added as additional scope.
- The purpose of the weekly meeting is to check in about logistics and expected to last around ½ hour typically with exceptions for 1 hour meetings when more needs to be discussed.

2. Conceptual Design.
- A 2-hour Development Strategy Meeting will be held to establish the facts for the site and discuss options with City Staff.
- Site Tests will take approximately a month for each iteration. The information generated is intended for staff and expert team analysis only.

3. Financial Analysis
- The Residual Land Value Analysis will accompany the site tests.
- The project culminates in Funding Analysis.

# FEE PROPOSAL

This proposal reflects a not-to-exceed fee of $50,000 that is billed on a time and materials basis. Given the quick timeline, the proposed cost is minimized as much as possible by focusing on Task 2: Conceptual Design.

**BILLING RATES**

| | | | |
|---|---|---|---|
| Jane Lin | Urban Field Studio | Principal-in-Charge | $245/hour |
| Ryan Call | Urban Field Studio | Design Principal | $195/hour |
| Steve Lovell | HKIT Architects | Design Advisor | $210/hour |
| Teifion Rice-Evans | EPS | Economist | $300/hour |
| Bex Allen | EPS | Research Analyst | $170/hour |

| | Urban Field | HKIT | EPS | Subtotals |
|---|---|---|---|---|
| **1. Project Management**[1] | $3,000.00 | | | $3,000.00 |
| | | | | |
| **2. Conceptual Design** | | | | |
| A. Development Strategy Meetings | $5,000.00 | | | $5,000.00 |
| B. Site Tests/Development Concepts[2, 3] | $20,000.00 | $2,000.00 | | $22,000.00 |
| | | | | |
| **3. Financial Analysis**[4, 5] | | | | |
| A. Residual Land Value Analysis | | | $15,000.00 | $15,000.00 |
| B. Funding Analysis | | | $5,000.00 | $5,000.00 |
| Project Total | $28,000.00 | $2,000.00 | $20,000.00 | **$50,000.00** |

## OPTIONAL TASKS

1. Project Management extension: $1,000/month
2. Conceptual Design Presentation: The team will prepare and deliver a digital presentation to the City Council: $5,000
3. Conceptual Design Renderings: $5,000 each (the scope of work for design includes massing only)
4. Financial Analysis: Additional Research and Assessment of other Funding Sources can be included as an additional task this contract (rate TBD) or on a separate contract.
5. Financial Analysis: Community Center Financing Plan can be included as an additional task this contract (rate TBD) or on a separate contract.

# DISCLOSURES

There have been no prior or ongoing incidents where the Consultant has defaulted or failed to perform, and which has led to a consultant agreement being terminated prior to adequate project completion. There have been no previous civil or criminal litigation, or investigation that has resulted in the Consultant to be judged guilty or liable.

This business is not lawfully precluded from participating in public procurement. None of the issues raised by the RFP are applicable to Urban Field Studio, thus there are no disclosures to provide.

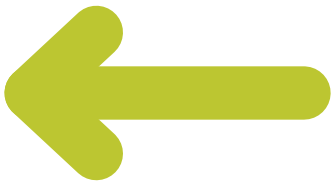
# CONTRACT ACCEPTANCE

The standard contract has been reviewed and Urban Field Studio is willing to execute the Services Agreement if selected.

Thank you in advance for considering these proposed changes from Urban Field Studio's legal counsel.

**1.2** **Standard of Performance.** Consultant shall perform all services required pursuant to this Agreement in accordance with the usual and customary manner ~~and according to the standards~~ observed by a competent practitioner of the profession in which Consultant is engaged in the geographical area in which Consultant practices its profession, the Standard of Care. ~~Consultant shall prepare all work products required by this Agreement in a substantial, first-class manner and shall conform to the standards of quality normally observed by a person practicing in Consultant's profession.~~

**Section 5.** **INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.** Consultant shall to the fullest extent allowed by law, with respect to all Services performed in connection with this Agreement, defend ~~with counsel acceptable to the City~~, and indemnify and hold the City and its officials, officers, employees, ~~agents~~, and volunteers harmless from ~~and against any and all~~ losses that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant ("Claims").Consultant will bear ~~all~~ the portion of loses, costs, damages, expense and liability of ~~every kind, nature and description that arise out of, pertain to, or relate to such~~ Claims caused by the negligent performance of the Consultant, whether directly or indirectly ("Liability"). Such obligations to defend, hold harmless and indemnify the City shall not apply to the extent that such Liability is caused by the ~~sole negligence, active~~ actual or alleged negligence, or willful misconduct of the City or any third party.



# URBAN FIELD

1423 Broadway
Oakland, CA 94612
510-207-9537
jane@urbanfieldstudio.com

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OAKLEY
CALIFORNIA

**CONSULTING SERVICES AGREEMENT BETWEEN THE CITY OF OAKLEY AND URBAN FIELD STUDIO FOR THE LBRARY AND O'HARA RESIDENTIAL PROJECTS DESIGN AND ECONOMIC FEASABILITY STUDY**

**THIS AGREEMENT** for consulting services is entered into by and between the City of Oakley, a municipal corporation in the State of California (hereinafter referred to as "City") and **Urban Field Studio** (hereinafter referred to as "Consultant"), collectively sometimes referred to hereinafter as the "Parties", as of **July 12, 2023** (the "Effective Date").

**Section 1.** **SERVICES**. Subject to the terms and conditions set forth in this Agreement, Consultant shall provide to City the services described in the Scope of Work or proposal letter attached hereto and incorporated herein as Exhibit A at the time and place and in the manner specified therein. In the event of a conflict in or inconsistency between the terms of this Agreement and Exhibit A, the Agreement shall prevail.

**1.1** **Term of Services.** The term of this Agreement shall begin on the Effective Date and shall end on **DECEMBER 31, 2023**, the date of completion specified in Exhibit A, and Consultant shall complete the work described in Exhibit A prior to that date, unless the term of the Agreement is otherwise terminated or extended, as provided for in Section 8. The time provided to Consultant to complete the services required by this Agreement shall not affect the City's right to terminate the Agreement, as provided for in Section 8. Should this Agreement be amended to include additional tasks as contemplated in Section 1, the term of services shall be extended as mutually agreed upon by City and Consultant.

**1.2** **Standard of Performance.** Consultant shall perform all services required pursuant to this Agreement in accordance with the usual and customary manner observed by a competent practitioner of the profession in which Consultant is engaged in the geographical area in which Consultant practices its profession, the Standard of Care.

**1.3** **Assignment of Personnel.** Consultant shall assign only competent personnel to perform services pursuant to this Agreement. In the event that City, in its sole discretion, at any time during the term of this Agreement, desires the reassignment of any such persons, Consultant shall, immediately upon receiving notice from City of such desire of City, reassign such person or persons.

**1.4** **Time.** Consultant shall devote such time to the performance of services pursuant to this Agreement as may be reasonably necessary to meet the standard of performance provided in Section 1.1 above and to satisfy Consultant's obligations hereunder.

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**Section 2.** **COMPENSATION.** City hereby agrees to pay Consultant a sum not to exceed **$60,000**, notwithstanding any contrary indications that may be contained in Consultant's proposal, for services to be performed and reimbursable costs incurred under this Agreement. In the event of a conflict between this Agreement and Consultant's proposal, attached as Exhibit A, regarding the amount of compensation, the Agreement shall prevail. City shall pay Consultant for services rendered pursuant to this Agreement at the time and in the manner set forth herein. The payments specified below shall be the only payments from City to Consultant for services rendered pursuant to this Agreement. Consultant shall submit all invoices to City in the manner specified herein. Except as specifically authorized by City, Consultant shall not bill City for duplicate services performed by more than one person.

Consultant and City acknowledge and agree that compensation paid by City to Consultant under this Agreement is based upon Consultant's estimated costs of providing the services required hereunder, including salaries and benefits of employees and subcontractors of Consultant. Consequently, the parties further agree that compensation hereunder is intended to include the costs of contributions to any pensions and/or annuities to which Consultant and its employees, agents, and subcontractors may be eligible. City therefore has no responsibility for such contributions beyond compensation required under this Agreement.

**2.1** **Invoices.** Consultant shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:

- Serial identifications of progress bills; i.e., Progress Bill No. 1 for the first invoice, etc.;
- The beginning and ending dates of the billing period;
- A Task Summary containing the original contract amount, the amount of prior billings, the total due this period, the balance available under the Agreement, and the percentage of completion;
- At City's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense;
- The Consultant's signature.

**2.2** **Monthly Payment.** City shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. City shall have 30 days from the receipt of an invoice that complies with all of the requirements above to pay Consultant.

**2.3** **Final Payment.** City shall pay the last 10% of the total sum due pursuant to this Agreement within 60 days after completion of the services and submittal to City of a final invoice, if all services required have been satisfactorily performed.

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**2.4** **Total Payment.** City shall pay for the services to be rendered by Consultant pursuant to this Agreement. City shall not pay any additional sum for any expense or cost whatsoever incurred by Consultant in rendering services pursuant to this Agreement. City shall make no payment for any extra, further, or additional service pursuant to this Agreement.

In no event shall Consultant submit any invoice for an amount in excess of the maximum amount of compensation provided above either for a task or for the entire Agreement, unless the Agreement is modified prior to the submission of such an invoice by a properly executed change order or amendment approved by the City Manager, which shall not exceed the maximum amount allowed by the Oakley Municipal Code.

**2.5** **Hourly Fees.** Fees for work performed by Consultant shall not exceed the amounts shown on the Compensation Schedule attached hereto and incorporated herein as Exhibit A.

**2.6** **Reimbursable Expenses.** Reimbursable expenses are specified in Exhibit A, and expenses not listed in Exhibit A are not chargeable to the City.

**2.7** **Payment of Taxes.** Consultant is solely responsible for the payment of employment taxes incurred under this Agreement and any similar federal or state taxes.

**2.8** **Payment upon Termination.** In the event that the City or Consultant terminates this Agreement pursuant to Section 8 of this Agreement, the City shall compensate the Consultant for all outstanding costs and reimbursable expenses incurred for work satisfactorily completed as of the date of written notice of termination. Consultant shall maintain adequate logs and timesheets in order to verify costs incurred to that date.

**2.9** **Authorization to Perform Services.** The Consultant is not authorized to perform any services or incur any costs whatsoever under the terms of this Agreement until receipt of authorization from the Contract Administrator.

**Section 3.** **FACILITIES AND EQUIPMENT.** Except as set forth herein, Consultant shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the services required by this Agreement. City shall make available to Consultant only the facilities and equipment listed in this section, and only under the terms and conditions set forth herein.

City shall furnish physical facilities such as desks, filing cabinets, and conference space, as may be reasonably necessary for Consultant's use while consulting with City employees and reviewing records and the information in possession of the City. The location, quantity, and time of furnishing those facilities shall be in the sole discretion of City. In no event shall City be obligated to furnish

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any facility that may involve incurring any direct expense, including but not limited to computer, long-distance telephone or other communication charges, vehicles, and reproduction facilities.

**Section 4. INSURANCE REQUIREMENTS.** Before beginning any work under this Agreement, Consultant, at its own cost and expense, shall procure the types and amounts of insurance listed below and in Exhibit B against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Consultant and its agents, representatives, employees, and subcontractors. Consistent with the following provisions, Consultant shall provide proof satisfactory to City of such insurance that meets the requirements of this section and under forms of insurance satisfactory in all respects to the City, and that such insurance is in effect prior to commencing work under this Agreement. Consultant shall maintain the insurance policies required by this section throughout the term of this Agreement. The cost of such insurance shall be included in the Consultant's bid. Consultant shall not allow any subcontractor to commence work on any subcontract until Consultant has obtained all insurance required herein for the subcontractor(s) and provided evidence thereof to City. Verification of the required insurance shall be submitted and made part of this Agreement prior to execution. Verification of the required insurance is attached hereto and incorporated herein as Exhibit C.

**4.1 Variation.** The City may approve a variation in the insurance requirements, upon a determination that the coverage, scope, limit, and form of such insurance is either not commercially available, or that the City's interests are otherwise sufficiently protected.

**4.2 Notice of Reduction in Coverage.** In the event that any coverage required by this section is reduced, limited, or materially affected in any other manner, Consultant shall provide written notice to City at Consultant's earliest possible opportunity and in no case later than five days after Consultant is notified of the change in coverage.

**4.3 Remedies.** In addition to any other remedies City may have if Consultant fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, City may, at its sole option, exercise any of the following remedies, which are alternatives to other remedies City may have and are not the exclusive remedy for Consultant's breach:

- Order Consultant to stop work under this Agreement or withhold any payment that becomes due to Consultant hereunder, or both stop work and withhold any payment, until Consultant demonstrates compliance with the requirements hereof; and/or

- Terminate this Agreement.

**Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.** Consultant shall to the fullest extent allowed by law, with respect to all Services performed in connection with this Agreement, defend with counsel acceptable to the City, and indemnify and hold the City and its officials, officers, employees, and volunteers harmless from and against any and all losses that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant

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("Claims").Consultant will bear all losses, costs, damages, expense and liability of Claims caused by the negligent performance of the Consultant, whether directly or indirectly ("Liability"). Such obligations to defend, hold harmless and indemnify the City shall not apply to the extent that such Liability is caused by the sole negligence, active negligence, or willful misconduct of the City or any third party.

With respect to third party claims against the Consultant, the Consultant waives any and all rights of any type of express or implied indemnity against the indemnitees.

However, notwithstanding the foregoing, in accordance with California Civil Code Section 1668, nothing in this Agreement shall be construed to exempt the City from its own fraud, willful injury to the person or property of another, or violation of law. In addition, and notwithstanding the foregoing, to the extent this Agreement is a "construction contract" as defined by California Civil Code section 2783, as may be amended from time to time, such duties of Consultant to indemnify shall not apply when to do so would be prohibited by California Civil Code Section 2782.

**Section 6. STATUS OF CONSULTANT.**

**6.1 Independent Contractor.** At all times during the term of this Agreement, Consultant shall be an independent contractor and shall not be an employee of City. City shall have the right to control Consultant only insofar as the results of Consultant's services rendered pursuant to this Agreement and assignment of personnel pursuant to Subparagraph 1.3; however, otherwise City shall not have the right to control the means by which Consultant accomplishes services rendered pursuant to this Agreement. Notwithstanding any other City, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Consultant and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by City, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of City and entitlement to any contribution to be paid by City for employer contributions and/or employee contributions for PERS benefits.

**6.2 Consultant, Not Agent.** Except as City may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind City to any obligation whatsoever.

**Section 7. LEGAL REQUIREMENTS.**

**7.1 Governing Law.** The laws of the State of California shall govern this Agreement.

**7.2 Compliance with Applicable Laws.** Consultant and any subcontractors shall comply with all laws applicable to the performance of the work hereunder, including

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but not limited to, the California Building Code, the Americans with Disabilities Act, and any copyright, patent or trademark law. Consultant's failure to comply with any law(s) or regulation(s) applicable to the performance of the work hereunder shall constitute a breach of contract.

**7.3** **Other Governmental Regulations.** To the extent that this Agreement may be funded by fiscal assistance from another governmental entity, Consultant and any subcontractors shall comply with all applicable rules and regulations to which City is bound by the terms of such fiscal assistance program.

**7.4** **Licenses and Permits.** Consultant represents and warrants to City that Consultant and its employees, agents, and any subcontractors have all licenses, permits, qualifications, and approvals of whatsoever nature that are legally required to practice their respective professions. Consultant represents and warrants to City that Consultant and its employees, agents, any subcontractors shall, at their sole cost and expense, keep in effect at all times during the term of this Agreement any licenses, permits, and approvals that are legally required to practice their respective professions. In addition to the foregoing, Consultant and any subcontractors shall obtain and maintain during the term of this Agreement valid business licenses from City.

**7.5** **Nondiscrimination and Equal Opportunity.** Consultant shall not discriminate, on the basis of a person's race, religion, color, national origin, age, physical or mental handicap or disability, medical condition, marital status, sex, or sexual orientation, against any employee, applicant for employment, subcontractor, bidder for a subcontract, or participant in, recipient of, or applicant for any services or programs provided by Consultant under this Agreement. Consultant shall comply with all applicable federal, state, and local laws, policies, rules, and requirements related to equal opportunity and nondiscrimination in employment, contracting, and the provision of any services that are the subject of this Agreement.

Consultant shall include the provisions of this Subsection in any subcontract approved by the Contract Administrator of this Agreement.

## Section 8. TERMINATION AND MODIFICATION.

**8.1** **Termination.** City may cancel this Agreement at any time and without cause upon written notification to Consultant.

Consultant may cancel this Agreement upon 30 days written notice to City and shall include in such notice the reasons for cancellation.

In the event of termination, Consultant shall be entitled to compensation for services performed to the effective date of termination; City, however, may condition payment of such compensation upon Consultant delivering to City any or all

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documents, photographs, computer software, video and audio tapes, and other materials provided to Consultant or prepared by or for Consultant or the City in connection with this Agreement.

**8.2** **Extension.** City may, in its sole and exclusive discretion, extend the end date of this Agreement beyond that provided for in Subsection 1.1. This Agreement may be extended at the option of the City. Should City decide to exercise its option to extend this Agreement, City shall provide written notice to Consultant at least sixty (60) days prior to the end date of this Agreement. Any such extension shall require a written amendment to this Agreement, as provided for herein. Consultant understands and agrees that, if City grants such an extension, City shall have no obligation to provide Consultant with compensation beyond the maximum amount provided for in this Agreement, unless City agrees to do so by written amendment to this Agreement. Similarly, Consultant understands and agrees that, City shall have no obligation to reimburse Consultant for any otherwise reimbursable expenses incurred during the extension period, unless City agrees to do so by written amendment to this Agreement.

**8.3** **Amendments.** The parties may amend this Agreement only by a writing signed by all the parties.

**8.4** **Assignment and Subcontracting.** City and Consultant recognize and agree that this Agreement contemplates personal performance by Consultant and is based upon a determination of Consultant's unique personal competence, experience, and specialized personal knowledge. Moreover, a substantial inducement to City for entering into this Agreement was and is the professional reputation and competence of Consultant. Consultant may not assign this Agreement or any interest therein without the prior written approval of the Contract Administrator. Consultant shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors noted in the proposal, without prior written approval of the Contract Administrator.

**8.5** **Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between City and Consultant shall survive the termination of this Agreement.

**8.6** **Options upon Breach by Consultant.** If Consultant materially breaches any of the terms of this Agreement, City's remedies shall include, but not be limited to the following:

**8.6.1** Immediately terminate the Agreement;

**8.6.2** Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Consultant pursuant to this Agreement;

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**8.6.3** Retain a different consultant to complete the work described in Exhibit A not finished by Consultant; or

**8.6.4** Charge Consultant the difference between the cost to complete the work described in Exhibit A that is unfinished at the time of breach and the amount that City would have paid Consultant pursuant to Section 2 of this Agreement if Consultant had completed the work.

## Section 9. KEEPING AND STATUS OF RECORDS.

**9.1** **Records Created as Part of Consultant's Performance.** All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Consultant prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the City. Consultant hereby agrees to deliver those documents to the City upon termination of the Agreement. It is understood and agreed that the documents and other materials, including but not limited to those described above, prepared pursuant to this Agreement are prepared specifically for the City and are not necessarily suitable for any future or other use. City and Consultant agree that, until final approval by City, all data, plans, specifications, reports and other documents are confidential and will not be released to third parties without prior written consent of both parties.

**9.2** **Consultant's Books and Records.** Consultant shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services or expenditures and disbursements charged to the City under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement.

**9.3** **Inspection and Audit of Records.** Any records or documents that Section 9.2 of this Agreement requires Consultant to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the City. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds TEN THOUSAND DOLLARS ($10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of City or as part of any audit of the City, for a period of three (3) years after final payment under the Agreement.

## Section 10 MISCELLANEOUS PROVISIONS.

**10.1** **Attorneys' Fees.** If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any

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other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.

**10.2** **Venue.** In the event that either party brings any action against the other under this Agreement, the parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Contra Costa or in the United States District Court for the Northern District of California.

**10.3** **Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

**10.4** **No Implied Waiver of Breach**. The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

**10.5** **Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the parties.

**10.6** **Use of Recycled Products.** Consultant shall prepare and submit all reports, written studies and other printed material on recycled paper to the extent it is available at equal or less cost than virgin paper.

**10.7** **Conflict of Interest.** Consultant may serve other clients, but none whose activities within the corporate limits of City or whose business, regardless of location, would place Consultant in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

Consultant shall not employ any City official in the work performed pursuant to this Agreement. No officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.*

Consultant hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of the City. If Consultant was an employee, agent, appointee, or official of the City in the previous twelve months, Consultant warrants that it did not participate in any manner in the forming of this Agreement. Consultant understands that, if this Agreement is made in violation of Government Code §1090 *et.seq.*, the entire Agreement is void and Consultant will not be entitled to any compensation for services performed pursuant to this Agreement, including reimbursement of expenses, and Consultant will be required to reimburse the City for any sums paid to the Consultant. Consultant understands that, in addition to the foregoing, it may be subject to criminal

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prosecution for a violation of Government Code § 1090 and, if applicable, will be disqualified from holding public office in the State of California.

**10.8** **Solicitation.** Consultant agrees not to solicit business at any meeting, focus group, or interview related to this Agreement, either orally or through any written materials.

**10.9** **Contract Administration.** This Agreement shall be administered by Kevin Rohani, P.E., Public Works Director/City Engineer ("Contract Administrator"). All correspondence shall be directed to or through the Contract Administrator or his or her designee.

**10.10** **Notices.**
Any written notice to Consultant shall be sent to:

Urban Field Studio
Attn: Jane Lin
1423 Broadway
Oakland, CA 94612

Any written notice to City shall be sent to:

**City of Oakley**
**Attn: Joshua McMurray, City Manager**
**3231 Main Street**
**Oakley, CA 94561**

**10.11** **Professional Seal.** Where applicable in the determination of the Contract Administrator, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation. The stamp/seal shall be in block entitled "Seal and Signature of Registered Professional with report/design responsibility," as in the following example.

| |
|---|
| _____<br>Seal and Signature of Registered Professional with report/design responsibility. |

**10.12** **Integration.** This Agreement, including the Scope of Work and Compensation Schedule, Insurance Requirements, and Verification of Required Insurance, attached hereto and incorporated herein as Exhibit A, B and C respectively, represents the entire and integrated agreement between City and Consultant and

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supersedes all prior negotiations, representations, or agreements, either written or oral.

| | |
|---|---|
| Exhibit A | Scope of Services and Compensation Schedule |
| Exhibit B | Insurance Requirements |
| Exhibit C | Verification of Required Insurance |

**10.13 Counterparts.** This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.

**10.14 Authorized Signature.** Each person and party signing this Agreement warrants that he/she has the authority to execute this Agreement on behalf of the principal and that the party will be bound by such signature.

The parties have executed this Agreement as of the Effective Date.

CITY

**City of Oakley, a municipal corporation in the State of California**

By: _____
Joshua McMurray, City Manager

Attest:

_____
Libby Vreonis, City Clerk

Approved as to Form:

_____
Derek P. Cole, City Attorney

CONSULTANT

**Urban Field Studio a California Corporation**

By: _____ DocuSigned by: Jane Lin 496888158DDC476...
Signature

By: _____
Jane Lin, President

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# EXHIBIT A

## SCOPE OF SERVICES AND COMPENSATION SCHEDULE

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# Scope of Work

The Oakley Library and O'Hara Residential Projects Design and Economic Feasibility Study includes four tasks.

**Task 1. PROJECT MANAGEMENT** (UFS)
The project includes Project Management given a 3 month time frame, if the desire is to complete before September 30, 2023. Timeline extensions beyond September 30, 2023 are additional to this Scope of Work.

**Task 2. CONCEPTUAL DESIGN** (UFS, with HKIT and EPS advising)

A. **Development Strategy:** The Consultant team begins the Task with a 2- hour all hands development strategy meeting with UFS and EPS to make sure we are all on the same page and to bring a few questions and ideas to the table to determine where we may begin exploring. Development Concepts expressed through site tests must follow critical decisions about key design factors including targeted size and counts for plan components, environmental constraints, circulations, and amenities that are desired for the site. The iterations of the site tests may be determined by the whole team, but would likely be:
    a. An iteration of each site that follows the previous research performed
    b. Another iteration of each site informed by the development strategy determined by the team

B. **Site Tests/Development Concepts:** UFS will produce Site Test/Development Concepts for two sites and two iterations of each site. (The conceptual sketches are physical feasibility studies, they are not architectural or schematic design.) The UFS design methodology utilizes a draft presentation, whiteboard sessions, and architectural modeling that is coupled with a spreadsheet of development counts. UFS will be advised by HKIT on the design of public facilities and housing. Development Concepts will include land uses, their location, and high-level assumptions about programming. The site tests will yield estimated areas (gross square feet and net rentable area), building massing (height, stories, floor plate assumptions), number of units, size of units, number of parking spaces and type.

**Deliverables:** The Site Tests/Conceptual Design will be summarized in a digital Presentation to Staff and will include:
1. Conceptual sketches of the site layout (plan).
2. Three dimensional massing images. Massing may have some features to make the blocks look more like buildings, but will not include any finer detail.
3. Spreadsheet of development counts
4. Rendering (1)

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**Task 3. FINANCIAL ANALYSIS (EPS)**

A. **Residual Land Value Analysis:** The Residual Land Value analysis will provide new estimates of the expected residual land value of the O'Hara Block and hence its ability to cross-subsidize the development of the Community Center as part of the public-private concept. Key components of this work effort will include:

*Residential Development Program*
The Site Testing analysis coupled with City staff direction (based on their conversations with City Council) will allow for the specification of the maximum potential residential development project. This development program (and potentially a second smaller option if appropriate) will be a key component of the residual land value analysis. EPS will confer with UFS and City to ensure it is reflecting the potential residential development program(s) appropriately.

*Planning Level Development Costs*
Planning-level development costs for the residential development project will be developed including:

- Planning level estimates of direct construction costs for the residential building and parking will be based on Consulting Team experience working with residential developers on other projects as well as a review of "cost books", such as Marshall & Swift.
- Soft costs, including architecture and engineering, marketing, construction financing, and general administration, will be based on typical percentages of hard costs.
- Approximate estimates of impact fees will be derived from the City's fee schedule and conversations with City staff.
- Recognizing recent volatility in costs, two cost scenarios may be developed to support sensitivity testing.

*Rental Revenues*
Expected market rate rental revenues will be based on research of current rents at other multi-family apartment buildings of a similar nature in locations with similar characteristics. Distinctions will be made for expected rents for apartments with different numbers of bedrooms. The below market rate rents will be based on the appropriate income limits consistent with the proposed affordability level.

*Hurdle Rates (Yield on Cost or Capitalization Rates)*
Hurdle Yields and Capitalization Rates have been increasing recently due to rising interest rates and other economic factors. Based on other projects and available data sources, two sets of returns will be developed including a baseline set reflecting current market expectations and a moderated set for sensitivity testing that might be expected in the near-future.

*Residual Land Value Analysis*
The prior subtasks will together allow for the development of a complete residual land value analysis (table set) and the estimate of the expected land value. Sensitivity analysis will also provide an indication of the potential range of land values.

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B. **Funding Analysis.** The Consulting Team will bring together the findings of the site test analyses, planning-level cost estimates, and residual land value analysis to draw conclusions on the ability of the residential parcel sale to fully or partially fund different community center concepts. These conclusions will help City staff, stakeholders, and policymakers consider preferred paths forward, the potential role of land sales in the financing strategy, and whether additional funding gaps are expected under different scenarios. Any funding gaps could be broadly considered in light of the public facilities fee reserves and to what extent they would require additional action/ funding from other sources.

**Deliverables:** EPS will provide a technical memorandum summarizing the residual land value analysis and the conclusions of the funding analysis

**Task 4. MEETINGS** (UFS and EPS)
In addition to the Development Strategy Meeting that kicks off the project, there will also be:

1. A Mid-way to check in Meeting with staff
2. A Presentation of the final findings to Staff Team
3. A Digital Presentation to the General Public to be used for a City Council Meeting

## Project Fee

| Task | | Urban Field | HKIT | EPS | Fee |
|---|---|---|---|---|---|
| **1** | **Project Management** | $3,000.00 | | | $3,000.00 |
| **2** | **Conceptual Design** | | | | |
| | Development Strategy | $5,000.00 | | $2,000.00 | $7,000.00 |
| | Site Tests (4) | $20,000.00 | $2,000.00 | | $22,000.00 |
| | Rendering (1) | $5,000.00 | | | $5,000.00 |
| **3** | **Financial Analysis** | | | | |
| | Residual Land Value Analysis | | | $13,000.00 | $13,000.00 |
| | Funding Analysis | | | $5,000.00 | $5,000.00 |
| 4 | **Meetings** | *$3,500.00* | $500.00 | $1,000.00 | $5,000.00 |
| | | | | | |
| | **Project Total** | $36,500.00 | $2,500.00 | $21,000.00 | **$60,000.00** |
| | *Optional* | | | | |
| | Project Management | $1,000.00 | per month | | |

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## EXHIBIT B

## INSURANCE REQUIREMENTS

**PROFESSIONAL SERVICE CONTRACTS:**

Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, or employees.

**MINIMUM SCOPE AND LIMIT OF INSURANCE**

Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Insurance Services Offer Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **$1,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability:** Insurance Services Office Form Number CA 0001 covering, Code 1 (any auto), or if Consultant has no owned autos, Code 8 (hired) and 9 (non-owned), with limit no less than **$1,000,000** per accident for bodily injury and property damage.
3. **Workers' Compensation** insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than **$1,000,000** per accident for bodily injury or disease.
   **(not required if consultant provides written verification, it has no employees)**
4. **Professional Liability** (Errors and Omissions) Insurance appropriates to the Consultant's profession, with limit no less than **$1,000,000** per occurrence or claim, $2,000,000 aggregate.

If the Consultant maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

**Other Insurance Provisions**

**The insurance policies are to contain, or be endorsed to contain, the following provisions:**

***Additional Insured Status***

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**The City, its officers, officials, employees, and volunteers are to be covered as additional insureds** on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts or equipment furnished in connection with such work or operations. General liability coverage should be provided in the form of an endorsement to the Consultant's insurance (at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10 and CG 20 37 forms if later revisions used).

***Primary Coverage***
For any claims related to this contract, the **Consultant's insurance coverage shall be primary** insurance as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

***Notice of Cancellation***
Each insurance policy required above shall state that **coverage shall not be canceled, except with notice to the City.**

***Waiver of Subrogation***
Consultant hereby grants to City a waiver of any right to subrogation which Consultant or any insurer of said Consultant may acquire against the City by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.

***Deductibles and Self-Insured Retentions***
Any deductibles or self-insured retentions must be declared to and approved by the City. The City may require the Consultant to provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.

***Acceptability of Insurers***
Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City.

***Claims Made Policies***
If any of the required policies provide coverage on a claims-made basis:

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided ***for at least five (5) years after completion of the contract of work.***
3. If coverage is canceled or non-renewed, and not ***replaced with another claims-made policy form with a Retroactive Date*** prior to the contract effective date, the Consultant must purchase "extended reporting" coverage for a minimum of ***five (5)*** years after completion of contract work.

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***Verification of Coverage***

Consultant shall furnish the City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant's obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

***Subcontractors***

Consultant shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that City is an additional insured on insurance required from subcontractors.

***Special Risks or Circumstances***

City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

OAKLEY
CALIFORNIA

Approved and Forwarded to the City Council

**DATE:** July 11, 2023
**TO:** City Council
**FROM:** Joshua McMurray, City Manager
**SUBJECT:** Authorization for the City Manager to Execute the Purchase and Sale Agreement with R&R Pacific Construction, Inc. for the sale of 0.90 Acres of APN 037-160-018 for the development of a mixed use commercial/retail and residential project

## Background and Analysis

In March 2023, 0.90 acres of commercial land of APN 037-160-018 was officially declared as surplus along the railroad right of way adjacent to the Oakley Plaza site. Appropriate notifications were promptly sent to the California Department of Housing and Community Development as required by State law and relevant local agencies to ensure transparency and compliance with regulations. Following the 60-day period for notice and after receiving no offers from any developers, the City then issued a Request for Proposal Invitation.

This 40,000 square foot property is situated in the Downtown Core Area of the Downtown Specific Plan and is suited for mixed-use commercial/retail and residential development. The development contemplated in the proposal is conceptual at this point and would require further refinement by the developer and review and approval by the City.

At the conclusion of the bidding period, the city received a single project bid of $98,500 from R&R Pacific Construction, Inc. which includes a mixed-use use commercial/retail and residential development proposal. The conceptual plans they have prepared for the development of this site dovetail smoothly with our downtown plan and strategic development goals, exhibiting an understanding of optimal use principles and furthering our ongoing downtown development efforts. Staff conducted an appraisal on the property to understand the market value. That appraised value is $337,000. The current proposal at $98,500 is $238,500 lower than the appraised value. Staff does feel there is merit to consider the sale at a less than market price. The new development would continue to expand and offer more tenant space in the downtown, which lacks new space for tenants to locate. The development also incorporates residential development on the second floor, which would bring more residents into the Downtown area, in a location that would be served by the future multi-modal train platform that is expected to be operational by early 2025. The development proposal is from the same developer who is actively constructing in the

City and has already proven they can deliver a high quality project to this community. The development of this new parcel would also bring in several new businesses to Oakley and would allow for a mix of uses based on the zoning of the property. Lastly, the City has very little in terms of Economic Development incentives that can be offered to stimulate development like the one proposed. A reduction in market value to entice and facilitate quality development should be a consideration of proposals like this. The long-term benefits of property tax, sales tax, job creation and business attraction are all items that tis development would bring and should be taken into account when considering the proposed purchase price.

R&R Pacific Construction, Inc. has an established portfolio that includes significant local projects, such as the Mercantile Shopping Center located at 3350 Main Street. Their involvement in such community-enhancing endeavors serves as evidence of their commitment to local development. This proposed project's location, being near the Mercantile Shopping Center, is expected to increase foot traffic to the area and enhance the vitality of downtown and its retail center that prioritize the Oakley community.

The company's proposal includes the creation of a mixed-use commercial/retail and residential development. The planned building is projected to span an area of roughly 7,200 sq ft, providing room for a diverse range of enterprises, such as retail outlets, eateries, and cafes. This versatile expansion is anticipated to enhance the lively and dynamic ambiance of our downtown area.

The agreement is centered around escrow closing 30 days after R&R is successful in both receiving an entitlement for the project and the City issuing a building permit for the construction of the project. If both of those do not happen, escrow would not close and the property would remain under City control. It should also be noted that because this project involves residential development, the developer will have to ultimately comply with the Surplus Land Act requirements which will stipulate that 15% of the residential units be affordable to lower income families, essentially making less than 80% of the area median income. The Purchase and Sale agreement reflects this requirement as well as the closing requirement also described.

## Consistency with the Oakley Strategic Plan 27+

This item is consistent with the Community and Economic Development goals of Strategic and Thoughtful Growth, specifically the sub-objective that points to the City revitalizing and drawing people into the downtown through the sale of City-owned property based on community benefit.

## Fiscal Impact

The anticipated gross revenue from selling the city-owned parcel is $98,500 which, when escrow closes, will go to the City General Fund.

## Staff Recommendation

Staff recommends the City Council authorize the City Manager to execute the Purchase and Sale Agreement with R&R Pacific Construction, Inc. for the sale of the portion of APN 037-160-018, Main Street.

## Attachments

1. Bid Proposal Cover Letter
2. Preliminary Plot and Project Plans
3. Draft Purchase and Sales Agreement
4. Draft Resolution

**R&R Pacific Construction**
PO Box 1029
WOODLAND, CA 95776
(530) 668-7525 FAX (530) 564-1477

June 27, 2023

Attention: Harumi Murata, Economic Development Manager
City of Oakley
3231 Main Street
Oakley, CA 94561

RE: Portion of APN 037-160-018, Main Street

Dear Ms. Murata;

R&R Pacific Construction (RRPAC) is a family-owned licensed general engineering contractor and a relationship-driven company that provides clients with superior project delivery, integrity, quality, and value. The RRPAC team takes pride on every project we undertake and stive to exceed each client's expectations. We work collaboratively with our clients to achieve mutual goals and project delivery with professionalism and dedication.

RRPAC specializes in all aspects of site development, grading, utilities, paving and concrete related work. The comprehensive site services that RRPAC provides for our clients provides a much more focused and cost-effective service to build facilities from underground to actual structures. RRPAC has developed solid working relationships with PG&E, Comcast, AT&T, ISD, and DWD, which has been priceless in construction of private and public infrastructure projects in Oakley.

RRPAC has seen the growth of East Contra Costa County, especially within the City of Oakley and has been a part of this growth in building quality infrastructure for the Oakley community and is committed to the growth and betterment of the City of Oakley.

RRPAC has successfully worked with the City of Oakley on the development of downtown with the Oakley community interest in mind. The new Oakley Mercantile building is close to completion and fully leased with tenants that will be a key commercial retail center for the community. Additionally, to better serve the community RRPAC has opened an office in Downtown Oakley as we are committed to growth and development in Oakley for the long term.

RRPAC wants to continue fostering our relationship with the Oakley community by participating in the growth and future of Oakley. The parcel of land, which is the focus of this RFP, is of great interest to RRPAC, as we would like to acquire this property and develop a commercial building for retail and residential opportunities. As mentioned, RRPAC has shown this commitment by building the Oakley Mercantile shopping center in the heart of downtown. The 10,000 SF building is at the final stages of construction, and we have fully leased the building to different tenants such as restaurants, coffee shop and a brewery. These new shops will entice new customers to the downtown area and enhance a vibrant and active downtown community.

With the growth of Oakley there is a need for retail stores that can serve the ever-increasing needs of the community with its diverse demographics. RRPAC sees this property perfectly located at the corner of major streets in Oakley as another site of great retail center for the Oakley community and sales tax generator.

As demonstrated with the Oakley Mercantile Building, RRPAC understands the local market and has the resources to perform and deliver. RRPAC is committed long term the Oakley Community and we are fully committed and excited to undertake the development of this parcel.

The attached architectural rendering reflects RRPAC concept plan for the new mix-use retail center and residential for this site. This plan reflects a commercial shopping center with a total square footage of about 7,200 SF. The building will accommodate a combination of retail shops, restaurants, coffee shops. This mix-use development at this downtown location is a successful model that has been made in other cities and we are confident that it will be successful in Oakley.

The research that RRPAC has performed in collaboration with commercial real estate brokers indicates that commercial retail rental rates ranges from $2.50 to $3.50/SF depending on the quality of the building and its features. The rental rates for market rate apartments for 2-bedroom apartments are in the $2,400 to $2,600/month and RRPAC is confident that the development of this project will be successful considering the current market rates.

RRPAC is well equipped, has all the construction resources needed to promptly undertake the construction of this project. RRPAC has the architect on-board with specialty in downtown developments. In fact, currently RRPAC is working on a similar project in downtown Woodland and we plan to bring the same design and construction team to Oakley. We anticipate the construction of this project to start in summer 2024 with completion by spring 2025.

We have included a copy of RRPAC's portfolio that highlights a few of the projects RRPAC has successfully completed.

Sincerely,

Raul Melendez, President

N

20' 20' 20' 20' 20' 20' 20'

60'

7200 SF

40'

POTENTIAL PLANTING AREA/BIORETENTION AREA

32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00 40+00

28' TYP

18+67

18+00 17+00 16+00 15+00

24' MIN TYP

LOT 2

24' MIN TYP

LOT 3

FUTURE DRIVEW

MEDICAL OFFICE BUILDING

MAIN STREET




FRONT ELEVATION (SOUTH)

3/16" = 1'-0"

## GENERAL NOTES:

**A.** REAVEAL LOCATIONS IN FINISH SYSTEM SHOWN ARE TO ALIGN AS CLOSELY AS POSSIBLE TO ELEVATIONS.

## MATERIAL LEGEND:

| | |
|---|---|
| C | CANOPY |
| S | STUCCO; 7/8" CEMENT PLASTER<br>TEXTURE: FINE SAND FINISH |
| MA | METAL AWNING |
| T | TRIM AND CORNICE |
| MR | METAL RAILING |

## COLOR LEGEND:

| | |
|---|---|
| P-1 | SHERWIN WILLIAMS<br>SW6133 COLOR: MUSLIN |
| P-2 | SHERWIN WILLIAMS<br>SW9120 COLOR: TUMBLIN TUMBLEWEED |
| P-3 | SHERWIN WILLIAMS<br>SW7046 COLOR: ANONYMOUS |
| FS-1 | VINTAGE BRICK<br>NICHIHA<br>ALEXANDRIA BUFF |
| FS-3 | VINTAGE BRICK<br>NICHIHA- ROUGHSAWN<br>SMOKE |

Milestone Associates Imagineering, Inc.
*1000 Lincoln Road, Suite H202, Yuba City, CA 95991*
*(530) 755-4700*

LOT 1- COMMERCIAL CENTER
OAKLEY, CA 94561

SOUTH EXTERIOR ELEVATIONS

4

06-26-23

# PURCHASE AND SALE AGREEMENT

This Purchase and Sale Agreement ("Agreement") is made by and between and the City of Oakley, a California municipal corporation ("Seller"), and R&R Pacific Construction, Inc. ("Buyer"). The effective date of this Agreement is July ___, 2023 ("Effective Date").

In consideration of the respective agreements hereinafter set forth, Seller and Buyer agree as follows:

## RECITALS

A. Seller is the owner of the Property as defined in Paragraph 1 below.

B. Buyer desires to purchase the Property from Seller, and Seller desires to sell the Property to Buyer, subject to the terms and conditions described within.

## AGREEMENT

NOW, THEREFORE, the parties agree as follows:

1. Property Included in Sale. Seller shall sell and convey to Buyer, and Buyer shall purchase from Seller, subject to the terms and conditions set forth herein, the following:

1.1 A 0.99 Acre of the Real Property located at Main Street (APN 037-160-018) in Oakley, California, which is described in Exhibit "A", attached hereto, in an area designated as a Downtown Core Area in Oakley Downtown Specific Plan.

1.2 All of Seller's right, title and interest in and to all rights, privileges and easements appurtenant to the Real Property, including without limitation all development rights, permits, entitlements and any rights-of-way or other appurtenances used in connection with the beneficial use and enjoyment of the Real Property (collectively, the "Appurtenances"). The Real Property and Appurtenances are collectively referred to herein as the ("Property").

2. Purchase Price. The purchase price for the Property shall be the sum of $98,500 (the "Purchase Price").

3. Opening of Escrow. An escrow account shall be opened within 10 days of the City Council authorizing the Purchase and Sale Agreement to be signed. Within five calendar days of the opening of escrow, Buyer will deposit the sum of $10,000.00 into escrow as the initial deposit for this transaction.

4. Title to the Property. At the closing of the purchase and sale contemplated hereunder (the "Closing"), Seller shall convey to Buyer insurable title to the Property by a duly executed and acknowledged Grant Deed in Title Company's standard form (the "Grant Deed"). At Closing, Title Company shall issue to Buyer a California Land Title Association Owner's Policy of Title Insurance in the amount of the Purchase Price insuring fee simple title to the Property in Buyer. The cost of the Title Policy shall be paid by the Buyer.

5. Conditions to Closing. The following conditions are conditions precedent to Buyer's obligation to purchase the Property (the "Conditions Precedent"):

5.1 Buyer's Review and Approval of Title to the Property. Seller shall use reasonable efforts to cause Title Company to deliver to Buyer a preliminary title report on the Property within twenty (10) days after the Effective Date, which preliminary title report shall be issued by Title Company and accompanied by copies of all documents referred to in the report (collectively, the "Preliminary Report"). Buyer shall advise Seller, within thirty (30) days after the Effective Date, what exceptions to title, if any, will be accepted by Buyer. Seller shall have ten (10) days after receipt of Buyer's objections to give Buyer: (i) notice that such exceptions will be removed on or before the Closing Date; or (ii) notice that Seller elects not to cause such exceptions to be removed. If Seller gives Buyer notice under clause (ii), Buyer shall notify Seller within ten (10) days after Buyer's receipt of Seller's notice whether Buyer elects to proceed with the purchase or terminate this Agreement. If Buyer shall fail to give Seller notice of its election within such ten-day period, Buyer shall be deemed to have elected to terminate this Agreement.

6. Closing and Escrow.

6.1 Execution of Agreement. The parties hereto shall deposit executed counterparts of this Agreement with the Title Company and this Agreement shall serve as instructions to the escrow holder for consummation of the donation, purchase, and sales contemplated hereby. Seller and Buyer agree to execute such additional escrow instructions as may be appropriate to enable the escrow holder to comply with the terms of this Agreement; provided, however, that in the event of any conflict between the provisions of this Agreement and any supplementary escrow instructions, the terms of this Agreement shall control.

6.2 Closing Date. Escrow shall close within 30 days of the entitlement of the project and the issuance of a building permit for the construction of the project.

6.3 Delivery of Documents. At or before the Closing Date (except to the extent otherwise specifically provided below), Seller shall deliver to Buyer the following:

(i) The grant deed for the Property, duly executed and acknowledged by Seller;

(ii) Such other documents or records as may be required under applicable law or as specified by the Title Company to ensure completion of all transactions described hereby.

6.4 Apportionment. The following are to be apportioned as of the Closing Date, as follows:

(i) Real Estate Taxes and Assessments. Buyer shall assume responsibility for all real estate taxes and assessments on the Property from the Closing Date forward.

(ii) Closing Costs. Buyer and seller shall split the recording fees, any County of Contra Costa transfer tax and the premium for the Title Policy and escrow fees and such other costs and charges of the escrow for the sale not otherwise provided for in this paragraph or elsewhere in this Agreement.

7. Party Representations. Seller or Buyer hereby represent as follows:

7.1 Full Authority. Seller and Buyer have full power and authority and have taken all action necessary to execute this Agreement and to fulfill all obligations hereunder.

7.2 Hazardous Materials. Seller represents the Property is free of contamination and hazardous materials.

7.3 Seller has disclosed to Buyer that the Property will be subject to the affordable housing restrictions set forth in California Government Code section 54233, and in compliance with that statute, the mandatory requirements shall be contained in a covenant or restriction recorded against the Property prior to Buyer's finalization of the Entitlements.

8. As-Is Acquisition. Buyer represents and warrants that as of the Close of Escrow, Buyer will have satisfied itself as to the physical, environmental, legal and economic condition and all other aspects of the Property and its suitability for the purposes intended by Buyer. Buyer acknowledges and agrees that Buyer is acquiring the Property subject to all existing laws, ordinances, rules and regulations, and that neither Seller nor any of Seller's agents, representatives and attorneys (collectively, "Seller's Agents") have made any warranties, representations or statements regarding the availability of any approvals, or the laws, ordinances, rules or regulations of any governmental or quasi-governmental body, entity, district or agency having authority with respect to the ownership, possession, development, occupancy, condition and/or use of the Property except as expressly provided herein. Buyer, moreover, acknowledges that Buyer has entered into this Agreement with the intention of relying upon its own investigation of the physical, environmental, economic and legal condition of the Property, including, without limitation, the compliance of the Property with laws and governmental regulations and the operation of the Property, and that Buyer is not relying on any representations and warranties made by Seller or anyone acting or claiming to act on Seller's behalf concerning the Property except as expressly provided herein. Buyer further acknowledges that it has not received from Seller any accounting, tax, legal, architectural, engineering, property management or other advice with respect to this transaction and is relying upon the advice of its own accounting, tax, legal, architectural, engineering, property management and other advisors. Buyer shall purchase the Property in its "As-Is" condition on the Closing Date and assumes the risk that adverse physical, environmental, economic or legal conditions may not have been revealed by its investigations. Seller shall have no liability for any subsequently discovered defects, whether latent or patent.

9. Miscellaneous.

9.1 Notices. Any notice, consent or approval required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been given upon (i) hand delivery, or (ii) three (3) days after being deposited in the U.S. Mail, and addressed as follows

If to Seller:

Joshua McMurray, City Manager
City of Oakley
3231 Main Street
Oakley, California 94561
McMurray@ci.oakley.ca.us

If to Buyer:

R&R Pacific Construction
Raul Melendez
619 2/1 Main Street
Woodland, California 95695
raulm@rrpaccon.com

Seller and Buyer shall each have the right from time to time to change the place notice is to be given under this section by written notice thereof to the other party.

9.2 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors, heirs, administrators and assigns.

9.3 Amendments. Except as otherwise provided herein, this Agreement may be amended or modified only by a written instrument executed by Seller and Buyer.

9.4 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of California.

9.5 Merger of Prior Agreements. This Agreement and the exhibits hereto constitute the entire agreement between the parties and supersede all prior agreements and understandings between the parties relating to the subject matter hereof.

9.6 Negotiated Agreement. Seller and Buyer acknowledge that this Agreement has been negotiated and that each party has had an opportunity to have the Agreement reviewed by legal counsel. Accordingly, notwithstanding the fact that this Agreement was prepared by Seller's counsel, the doctrine that ambiguities in an agreement shall be construed against the drafting party shall not be employed in connection with this Agreement.

9.7 Enforcement. If either party commences legal proceedings to enforce the terms of this Agreement, the prevailing party shall be entitled to recover from the other party its attorneys' fees and court costs incurred therein.

9.8 Time of the Essence. Seller and Buyer agree that time is of the essence of this Agreement. If either party fails to perform an obligation contained herein by the date such performance is required, it shall not be deemed to be unreasonable for the other party to pursue its remedies hereunder, including termination of this Agreement.

9.9 Severability. If any provision of this Agreement or the application thereof to any person, place or circumstance shall be held by a court of competent jurisdiction to be invalid, unenforceable or void, the remainder of this Agreement and such provisions as applied to other persons, places and circumstances shall remain in full force and effect.

9.10 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which shall constitute one and the same document.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

SELLER:

CITY OF OAKLEY

Joshua McMurray
City Manager

BUYER:

Raul Melendez

Raul Melendez
R&R Pacific Construction, Inc.

APPROVED AS TO FORM:

By: _____
Derek Cole, City Attorney

**EXHIBIT A**

[PROPERTY DESCRIPTION]



**RESOLUTION NO. XX-23**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OAKLEY AUTHORIZING THE CITY MANAGER TO EXECUTE A PURCHASE AND SALE AGREEMENT WITH R&R PACIFIC CONSTRUCTION, INC. FOR THE SALE OF A PROPERTY LOCATED AT MAIN STREET 0.90 ACRE OF PROPERTY OF APN 037-160-018.**

**BE IT RESOLVED** by the City Council of the City of Oakley that the City Manager is hereby authorized and directed to sign on behalf of the City that certain Purchase and Sales Agreement between the City and with R&R Pacific Construction, Inc. for the Sales of a Property located at Main Street 0.90 Acres of APN 037-160-018.

**PASSED AND ADOPTED** by the City Council of the City of Oakley this 11th day of July 2023 by the following vote:

AYES:
NOES:
ABSTENTION:
ABSENT:

APPROVED:

_____
Aaron Meadows, Mayor

ATTEST:

_____
Libby Vreonis, City Clerk

_____
Date

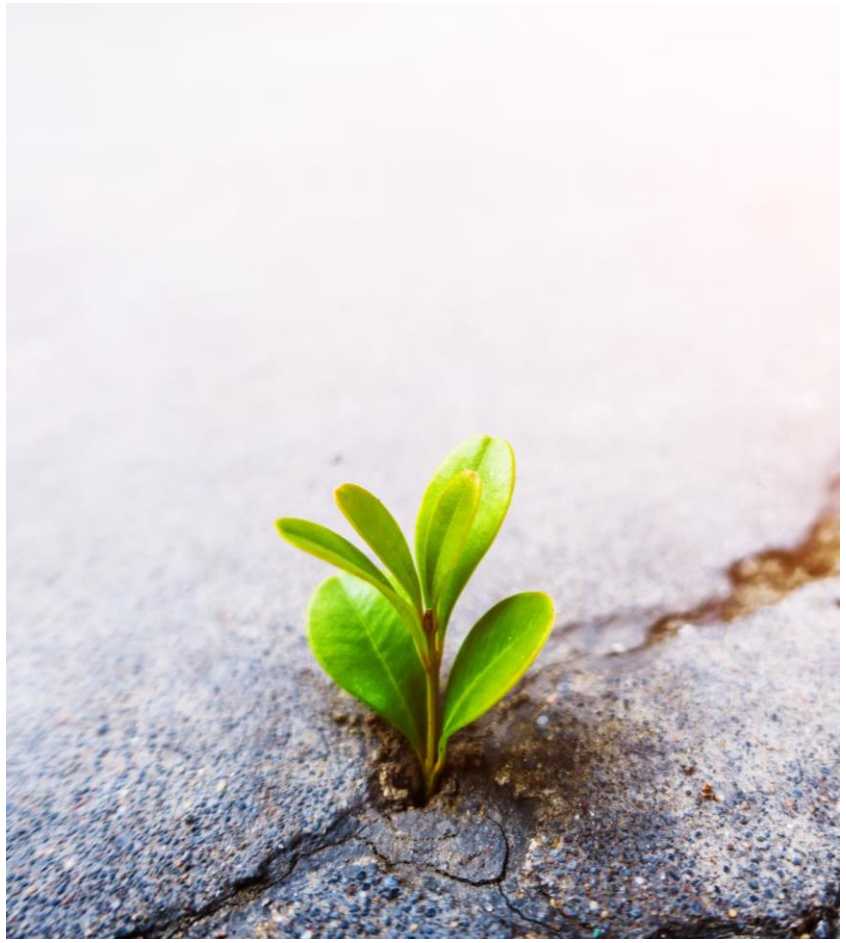



# Tyler Enterprise ERP Implementation

- Finance
- Human Resources Management
- Business Licensing
- Planning & Permitting
- Enterprise Asset Management

OAKLEY
CALIFORNIA

# Building the New



"The secret of change is to focus all your energy not on fighting the old, but on building the new." *- Socrates*

Success in the implementation of new systems lies not only in the technology itself, but in the people who champion it, the processes that support it, and the collective commitment to its success." *- Unknown*

# Mission Statement

The City of Oakley's Finance Implementation of Tyler Enterprise ERP is dedicated to bolstering fiscal transparency, ensuring long-term stability, and effectively channeling resources. It represents our commitment to modernize our financial systems and processes, enabling us to make data-driven decisions that will support strategic growth, safeguard community wellbeing, preserve our unique Delta lifestyle, foster collaborative partnerships, maintain fiscal responsibility, and promote a sustainable, inclusive municipal workforce. Aligned with our City's core values and strategic goals, we aspire to shape a prosperous City of Oakley where all can thrive.

# Tyler Technologies EERP




*Fully-Integrated System that will allow the City to…*

- **Increase** productivity, gain efficiencies, and improve our overall operational effectiveness.
- **Automate** many of our manual workflows and business processes as well as move towards a paperless environment by taking advantage of the tools built into the document management system.
- **Enhance** and expand our reporting capabilities with robust standard reporting suite and custom reporting options.
- **Share** information more easily with Citizens and City personnel from a single source of truth.

# Comprehensive Purpose



**Economic Catalyst**



**Community Well-being Advocate**



**Guardian of Open Spaces**



**Partnership Facilitator**



**Steward of Fiscal Responsibility**



**Sustainability Promoter**

# Economic Catalyst

- The new ERP system will **automate** and **streamline** financial processes such as invoicing, payment processing, and budgeting.
- Provide **improved financial reporting** and **analytics** capabilities.



# Community Well-being Advocate

- By implementing the new ERP system, we can **track and analyze expenditures** related to public safety programs more efficiently.



# Guardian of Open Spaces

•The ERP system will provide **detailed financial records** for park maintenance and upgrades.

•With the new ERP system, we can better **track and manage project and grant activities**.








# Partnership Facilitator & Steward of Fiscal Responsibility

- The new ERP system will **automate** and **streamline** financial processes such as invoicing, payment processing, and budgeting.
- Provide **improved financial reporting** and **analytics** capabilities.



# Sustainability Promoter

•The new ERP system will **automate** manual processes, **reducing** paper usage and promoting a more **environmentally friendly** approach to financial management.

•With streamlined operations and **improved data accuracy**, the ERP system will **enable better forecasting** and planning for future resource needs.

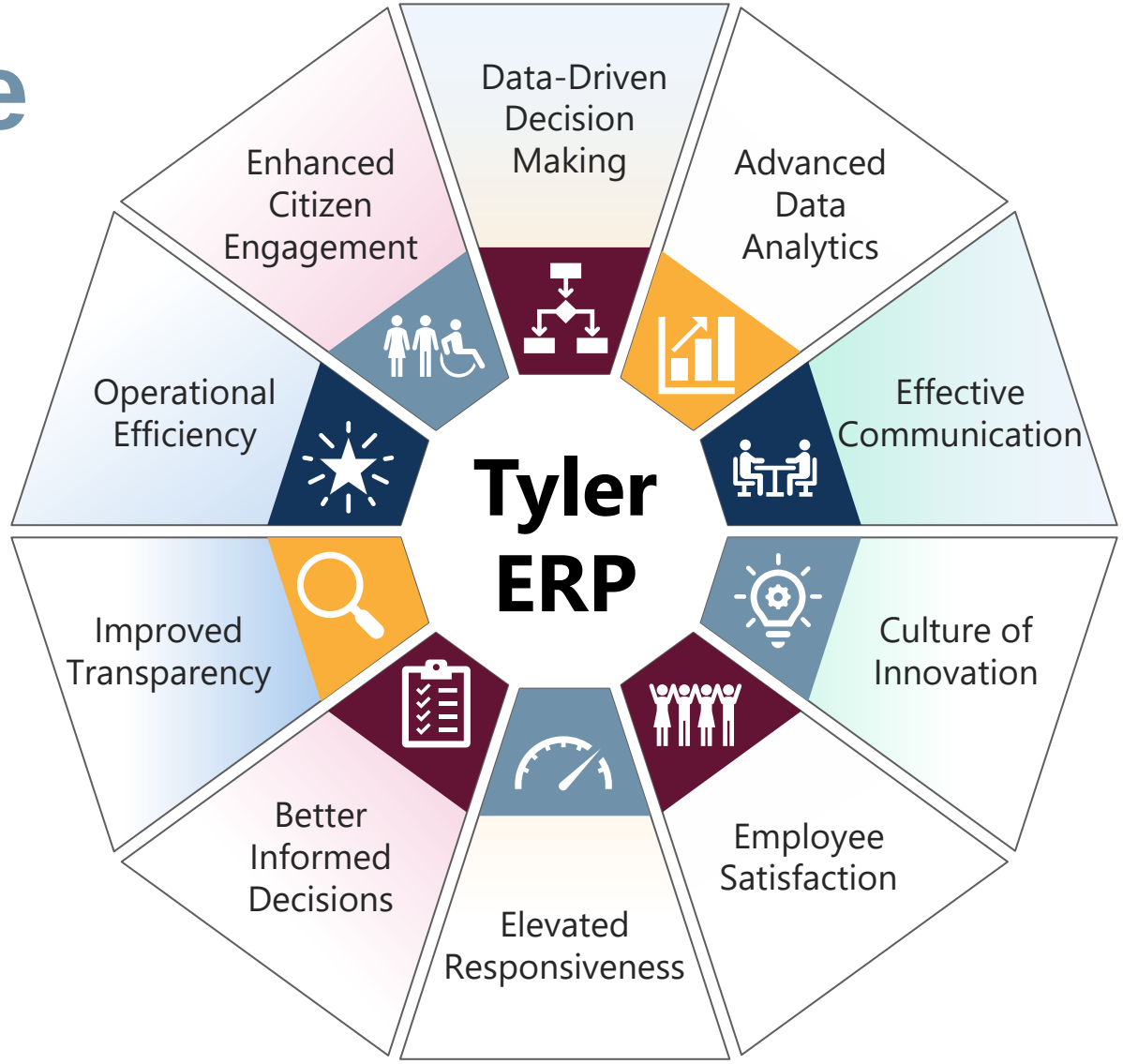





# Phase 1: Finance

## July 2023 – July 2024

*"Multi-Fund Accounting System to handle every aspect of accounting, budgeting, procurement and project performance."*



# Tyler EERP Timeline

| Phases | Q3 2023 | Q4 2023 | Q1 2024 | Q2 2024 | Q3 2024 | Q4 2024 | Q1 2025 | Q2 2025 | Q3 2025 | Q4 2025 | Q1 2026 | Q2 2026 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phase 1: Finance (EERP) | **July 2023 – July 2024** | | | | | | | | | | | |
| Phase 2: HRM | | | **January 2024 – January 2025** | | | | | | | | | |
| Phase 3: Business Licensing | | | | | | **September 2024 – March 2025** | | | | | | |
| Phase 4: EP&L Permitting & Licensing | | | | | | **September 2024 – September 2025** | | | | | | |
| Phase 5: EAM | | | | | | | | | **June 2025 – March 2026** | | | |

# Resource Allocation

| FINANCE | Accounting /GL | AP | Budgeting | Capital Assets | Cash Management | Contract Management | Vendor Access | Project & Grant Accounting | Purchasing | AR | GB | Tyler Cashiering | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Implementation Hours | *160* | *40* | *40* | *40* | *20* | *20* | *24* | *32* | *64* | *72* | *32* | *40* | **584** |
| 5:1 Ratio | *800* | *200* | *200* | *200* | *100* | *100* | *120* | *160* | *320* | *360* | *160* | *200* | **2920** |
| 6:1 Ratio | *960* | *240* | *240* | *240* | *120* | *120* | *144* | *192* | *384* | *432* | *192* | *240* | **3504** |
| 7:1 Ratio | *1120* | *280* | *280* | *280* | *140* | *140* | *168* | *224* | *448* | *504* | *224* | *280* | **4088** |

# Realize Success

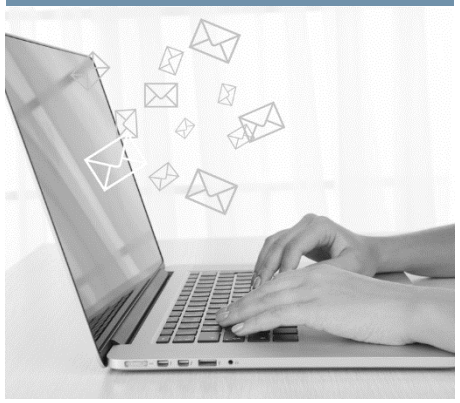
| | |
|---|---|
| **Enact** | ✓**Strong governance in supporting the Project Team** in meeting the goals of the project through each phase. |
| **Nurture** | ✓A **supportive organization culture that promotes collaboration and open communication**, where the Project Team is given the time and resources to meet project goals. |
| **Provide** | ✓Project Team resources with a**dequate time and support** to do their jobs effectively *and* fully participate in the project successfully. |
| **Clarify** | ✓Communication of any **change in priorities with enough time and resources** for the Project Team to pivot activities so that the project can stay on track. |
| **Understand** | ✓That there are multiple phases occurring concurrently, **which may require additional time and resources**; this needs to be supported and prioritized. |




# Thank You

OAKLEY
CALIFORNIA

# Contact Information

| Project Manager | Phone | Email |
| --- | --- | --- |
|  |  |  |
| **Holly Sitton Orognen** | **530.570.5271** | **holly@koahills.com** |

KoaHills CONSULTING

# STAFF REPORT

OAKLEY
CALIFORNIA

**DATE:** July 11, 2023

**TO:** Honorable Mayor and Members of the City Council

**FROM:** Derek P. Cole, City Attorney

Approved and Forwarded to the City Council

**SUBJECT:** Work Session to Discuss AB 1657 and Recent General Assembly of the Association of Bay Area Governments

## Background and Analysis

At the request of Dr. Fuller, Staff seeks input from the City Council concerning a bond measure pending in the Legislature, AB 1657, and certain initiatives that may be considered by the Association of Bay Area Governments ("ABAG").

AB 1657 would enact the Affordable Bond Housing Act of 2024, which would authorize the issuance of $10 billion in general obligation bonds to finance affordable housing and homeownership programs. The programs to be funded include those directed toward multifamily housing, housing rehabilitation, rental subsidies, energy efficiency and low-income weatherization, and affordability, among others. The bond measure would be submitted to California voters during the March 2024 Primary Election.

At ABAG's General Assembly last month, issues concerning California affordable housing mandates were discussed. This raises concerns about the increasing role the state may take in pushing for the creation of more affordable housing. Concerns may exist as to how other Bay Area cities may respond to the calculation of Regional Housing Needs Assessment ("RHNA") obligations, and resulting inequities.

The agenda from the last ABAG General Assembly meeting, along with links to each agenda item, is linked here: Agenda

A transcript of the General Assembly meeting is linked here: Meeting Transcript

Staff will request that the City Council provide direction for further action or follow up at the conclusion of this workshop.

## Attachments

1. AB 1657

# AB-1657 The Affordable Housing Bond Act of 2024. (2023-2024)

SHARE THIS:

Date Published: 04/17/2023 09:00 PM

AMENDED IN ASSEMBLY APRIL 17, 2023

CALIFORNIA LEGISLATURE— 2023–2024 REGULAR SESSION

## ASSEMBLY BILL NO. 1657

**Introduced by Assembly Member Wicks**
**(Principal coauthors: Senators Becker and Wiener)**
**(Coauthors: Assembly Members Friedman, Kalra, Robert Rivas, Schiavo, and Ward)**
**(Coauthors: Senators Cortese, Dodd, and Smallwood-Cuevas)**

**February 17, 2023**

An act to add Part 16.1 (commencing with Section 54050) to Division 31 of the Health and Safety Code, relating to housing, by providing the funds necessary therefor through an election for the issuance and sale of bonds of the State of California and for the handling and disposition of those funds, and declaring the urgency thereof, to take effect immediately.

## LEGISLATIVE COUNSEL'S DIGEST

AB 1657, as amended, Wicks. The Affordable Housing Bond Act of 2024.

Under existing law, there are programs providing assistance for, among other things, emergency housing, multifamily housing, farmworker housing, home ownership for very low and low-income households, and downpayment assistance for first-time home buyers. Existing law also authorizes the issuance of bonds in specified amounts pursuant to the State General Obligation Bond Law and requires that proceeds from the sale of these bonds be used to finance various existing housing programs, capital outlay related to infill development, brownfield cleanup that promotes infill development, and housing-related parks.

This bill would enact the Affordable Housing Bond Act of 2024, which, if adopted, would authorize the issuance of bonds in the amount of ~~$_____~~ *$10,000,000,000* pursuant to the State General Obligation Bond Law. Proceeds from the sale of these bonds would be used to finance programs to fund affordable rental housing and homeownership programs, ~~as provided.~~ *including, among others, the Multifamily Housing Program, the CalHome Program, and the Joe Serna, Jr. Farmworker Housing Grant Program.*

This bill would provide for submission of the bond act to the voters at the ~~November~~ *March* 5, 2024, statewide general election in accordance with specified law.

This bill would declare that it is to take effect immediately as an urgency statute.
Vote: 2/3 Appropriation: no Fiscal Committee: yes Local Program: no

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

**SECTION 1.** Part 16.1 (commencing with Section 54050) is added to Division 31 of the Health and Safety Code, to read:

**PART 16.1. Affordable Housing Bond Act of 2024**
**CHAPTER 1. General Provisions**

**54050.** This part shall be known as the Affordable Housing Bond Act of 2024.

**54051.** This part shall only become operative upon adoption by the voters at the ~~November~~ *March* 5, 2024, statewide general election.

**54052.** For purposes of this part, "fund" means the Affordable Housing Bond Act Trust Fund of 2024 created pursuant to Section 54054.

**CHAPTER 2. Affordable Housing Bond Act Trust Fund of 2024 and Program**

**54054.** (a) The Affordable Housing Bond Act Trust Fund of 2024 is hereby created within the State Treasury. It is the intent of the Legislature that the proceeds of bonds, exclusive of refunding bonds issued pursuant to Section 54076, be deposited in the fund and used to fund affordable rental housing and homeownership programs.

~~(b)It is the intent of the Legislature to further determine the allocation of these funds to specific programs.~~

*(b) The proceeds of bonds issued and sold pursuant to this part for the purposes specified in this chapter shall be allocated in the following manner:*

*(1) Five billion two hundred fifty million dollars ($5,250,000,000) to be deposited in the Housing Rehabilitation Loan Fund established pursuant to Section 50661 to be used for the Multifamily Housing Program authorized by Chapter 6.7 (commencing with Section 50675) of Part 2. At least 10 percent of assisted units in each development receiving these funds shall be affordable to extremely low income households.*

*(2) One billion seven hundred fifty million dollars ($1,750,000,000) to be deposited in the Housing Rehabilitation Loan Fund established pursuant to Section 50661 to be used for supportive housing, as defined in Section 50675.14, pursuant to the Multifamily Housing Program authorized by Chapter 6.7 (commencing with Section 50675) of Part 2. The department shall offer capitalized operating subsidy reserves for supportive housing units in developments receiving these funds.*

*(3) One billion five hundred million dollars ($1,500,000,000), to be appropriated by the Legislature, to preserve or rehabilitate existing subsidized or unsubsidized rental housing through the following programs:*

*(A) The program commonly known as the Portfolio Reinvestment Program established pursuant to Chapter 5.5 (commencing with Section 50606) of Part 2.*

*(B) The Energy Efficiency Low-Income Weatherization Program established pursuant to Section 12087.5 of the Government Code.*

*(C) A program, to be administered by the Department of Housing and Community Development, to fund the acquisition and rehabilitation of unrestricted housing units and attach long-term affordability restrictions on the housing units, while safeguarding against the displacement of current residents. It is the intent of the Legislature that the specific criteria establishing eligibility for and use of the funds shall be established in statute.*

*(4) One billion dollars ($1,000,000,000), to be appropriated by the Legislature, to provide homeownership opportunities through the following programs:*

*(A) The CalHome Program established pursuant to Chapter 6 (commencing with Section 50650) of Part 2.*

*(B) The home purchase assistance program established pursuant to Chapter 6.8 (commencing with Section 51341) of Part 3.*

*(5) Five hundred million dollars ($500,000,000), to be appropriated by the Legislature, for the following programs:*

*(A) The Joe Serna, Jr. Farmworker Housing Grant Program pursuant to Chapter 3.2 (commencing with Section 50515.2) of Part 2.*

*(B) A dedicated, flexible, and comprehensive state program designed for, and in consultation with, tribes, which shall be administered by the Department of Housing and Community Development, to finance housing and housing-related activities that will enable tribes to rebuild and reconstitute their communities. It is the intent of the Legislature that the specific criteria establishing eligibility for and use of the funds shall be established in statute.*

**54056.** (a) The Legislature may, from time to time, amend any law related to programs to which funds are, or have been, allocated pursuant to this chapter for the purposes of improving the efficiency and effectiveness of those programs or to further the goals of those programs.

(b) The Legislature may amend this chapter to reallocate the proceeds of bonds issued and sold pursuant to this part among the programs to which funds are to be allocated pursuant to this chapter as necessary to effectively promote the development of affordable housing in this state.

*(c) The Department of Housing and Community Development may disburse any funds made available to housing development projects pursuant to this chapter during the construction period.*

**CHAPTER 3. Fiscal Provisions**

**54060.** Bonds in the total amount of ~~_____~~ *ten billion* dollars ~~($_____),~~ *($10,000,000,000),* exclusive of refunding bonds issued pursuant to Section 54076, or so much thereof as is necessary as determined by the committee, are hereby authorized to be issued and sold for carrying out the purposes expressed in this part and to reimburse the General Obligation Bond Expense Revolving Fund pursuant to Section 16724.5 of the Government Code. All bonds herein authorized that have been duly issued, sold, and delivered as provided herein shall constitute valid and binding general obligations of the state, and the full faith and credit of the state is hereby pledged for the punctual payment of both principal of and interest on those bonds when due.

**54062.** The bonds authorized by this part shall be prepared, executed, issued, sold, paid, and redeemed as provided in the State General Obligation Bond Law (Chapter 4 (commencing with Section 16720) of Part 3 of Division 4 of Title 2 of the Government Code), except subdivisions (a) and (b) of Section 16727 of the Government Code, and all of the provisions of that law as amended from time to time apply to the bonds and to this part, except as provided in Section 54078, and are hereby incorporated in this part as though set forth in full in this part.

**54064.** (a) Solely for the purpose of authorizing the issuance and sale, pursuant to the State General Obligation Bond Law, of the bonds authorized by this part, the committee is continued in existence. For the purposes of this part, the Housing Finance Committee is "the committee" as that term is used in the State General Obligation Bond Law.

(b) For the purposes of the State General Obligation Bond Law, the Department of Housing and Community Development is designated the "board" for programs administered by the department, and the California Housing Finance Agency is the "board" for programs administered by the agency.

**54066.** Upon request of the board stating that funds are needed for purposes of this part, the committee shall determine whether or not it is necessary or desirable to issue bonds, and, if so, the amount of bonds to be issued and sold. Successive issues of bonds may be authorized and sold to carry out those actions progressively, and are not required to be sold at any one time. Bonds may bear interest subject to federal income tax.

**54068.** There shall be collected annually, in the same manner and at the same time as other state revenue is collected, a sum of money in addition to the ordinary revenues of the state, sufficient to pay the principal of, and interest on, the bonds each year. It is the duty of all officers charged by law with any duty in regard to the collections of state revenues to do or perform each and every act that is necessary to collect that additional sum.

**54070.** Notwithstanding Section 13340 of the Government Code, there is hereby continuously appropriated from the General Fund in the State Treasury, for the purposes of this part, an amount that will equal the total of both of the following:

(a) The sum annually necessary to pay the principal of, and interest on, bonds issued and sold pursuant to this part, as the principal and interest become due and payable.

(b) The sum that is necessary to carry out Section 54074, appropriated without regard to fiscal years.

**54072.** The board may request the Pooled Money Investment Board to make a loan from the Pooled Money Investment Account, in accordance with Section 16312 of the Government Code, for purposes of this part. The amount of the request shall not exceed the amount of the unsold bonds that the committee has, by resolution, authorized to be sold, excluding any refunding bonds authorized pursuant to Section 54076, for purposes of this part, less any amount loaned pursuant to this section and not yet repaid and any amount withdrawn from the General Fund pursuant to Section 54074 and not yet returned to the General Fund. The board shall execute any documents as required by the Pooled Money Investment Board to obtain and repay the loan. Any amount loaned shall be deposited in the fund to be allocated in accordance with this part.

**54074.** For purposes of carrying out this part, the Director of Finance may, by executive order, authorize the withdrawal from the General Fund of an amount or amounts not to exceed the amount of the unsold bonds that the committee has, by resolution, authorized to be sold, excluding any refunding bonds authorized pursuant to Section 54076, for purposes of this part, less any amount loaned pursuant to Section 54072 and not yet repaid and any amount withdrawn from the General Fund pursuant to this section and not yet returned to the General Fund. Any amounts withdrawn shall be deposited in the fund to be allocated in accordance with this part. Any moneys made available under this section shall be returned to the General Fund, plus the interest that the amounts would have earned in the Pooled Money Investment Account, from moneys received from the sale of bonds that would otherwise be deposited in that fund.

**54076.** The bonds may be refunded in accordance with Article 6 (commencing with Section 16780) of Chapter 4 of Part 3 of Division 4 of Title 2 of the Government Code. Approval by the electors of this act shall constitute approval of any refunding bonds issued to refund bonds issued pursuant to this part, including any prior issued refunding bonds. A bond refunded with the proceeds of a refunding bond as authorized by this section may be legally defeased to the extent permitted by law in the manner and to the extent set forth in the resolution, as amended from time to time, authorizing that refunded bond.

**54078.** Notwithstanding any provisions in the State General Obligation Bond Law, the maturity date of bonds authorized by this part shall not be later than 35 years from the date of each bond. The maturity of each series shall be calculated from the date of issuance of each bond.

**54080.** The Legislature hereby finds and declares that, inasmuch as the proceeds from the sale of bonds authorized by this part are not "proceeds of taxes" as that term is used in Article XIII B of the California Constitution, the disbursement of these proceeds is not subject to the limitations imposed by that article.

**54082.** Notwithstanding any provision of the State General Obligation Bond Law with regard to the proceeds from the sale of bonds authorized by this part that are subject to investment under Article 4 (commencing with Section 16470) of Chapter 3 of Part 2 of Division 4 of Title 2 of the Government Code, the Treasurer may maintain a separate account for investment earnings, may order the payment of those earnings to comply with any rebate requirement applicable under federal law, and may otherwise direct the use and investment of those proceeds so as to maintain the tax-exempt status of tax-exempt bonds and to obtain any other advantage under federal law on behalf of the funds of this state.

**54084.** (a) Subject to subdivision (b), all moneys derived from premiums and accrued interest on bonds sold pursuant to this part shall be transferred to the General Fund as a credit to expenditures for bond interest.

(b) Amounts derived from premiums may be reserved and used to pay the costs of bond issuance before transfer to the General Fund.

**SEC. 2.** Section 1 of this act shall become operative upon the adoption by the voters of the Affordable Housing Bond Act of 2024.

**SEC. 3.** Section 1 of this act shall be submitted to the voters at the ~~November~~ *March* 5, 2024, statewide election in accordance with provisions of the Government Code and the Elections Code governing the submission of a statewide measure to the voters.

**SEC. 4.** This act is an urgency statute necessary for the immediate preservation of the public peace, health, or safety within the meaning of Article IV of the California Constitution and shall go into immediate effect. The facts

constituting the necessity are:

In order to maximize the time available for the analysis and preparation of the proposed issuance of bonds pursuant to this act, it is necessary that this act take effect immediately.

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# SIDE LETTER OF AGREEMENT TO THE MEMORANDUM OF UNDERSTANDING BETWEEN THE OAKLEY POLICE OFFICERS ASSOCIATION AND THE CITY OF OAKLEY

This Side Letter of Agreement is entered into by and between the Oakley Police Officers Association and the City of Oakley effective July 1, 2022. The items listed in this Agreement shall supersede any provisions included in the current Memorandum of Understanding (MOU). The parties agree to the following Terms and Conditions:

2. Special Assignments

**g. Police Liaison - Special Services Team (SST)**

Any employee assigned to SST shall receive a five percent (5%) augmentation to base salary in the first full pay period following being assigned to SST.

| City of Oakley | | Oakley Police Officers' Association | |
|---|---|---|---|
| DocuSigned by: Joshua McMurray 2571533459F6461... | 6/21/2023 | DocuSigned by: E17607B7EBC443B... | 6/21/2023 |
| **Joshua McMurray, City Manager** | **Date** | **Tyler Radcliffe, President** | **Date** |

DocuSign Envelope ID: A9260440-055E-4EA3-A240-21CB40608BDD

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**g. Police Liaison - ~~Problem Oriented Policing (POP)~~Special Services Team (SST)**

Any employee assigned ~~as a POP Officer~~to SST shall receive a five percent (5%) augmentation to base salary in the first full pay period following being assigned to ~~POP~~SST.

| City of Oakley | | | Oakley Police Officers' Association | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| Joshua McMurray, City Manager | | Date | Tyler Radcliffe, President | | Date |