Lehi City Council Meeting
Agenda
August 23, 2022

5:30 PM - Lehi City Council Chambers (153 N. 100 E., Lehi, Utah)

Pre-Council, 5:30 p.m.

1. Welcome and Opening Comment

2. Presentations and Reports

   2.1. Discussion of a budget amendment for a new job position.

3. Joint Planning Commission & City Council Discussion

   3.1. Update on UTA's Station Area Plan Study for the Thanksgiving Point Frontrunner Station.

4. Mayor and Council Reports
   Calendar items and outside Committee reports

5. Agenda Questions
   The Mayor and City Council discuss and ask questions on items on the Regular Session agenda.

6. Administrative Report

7. Consideration of Adjourning into a Closed Session to discuss the purchase, exchange or lease of real property.

Regular Session, 7:00 p.m.

1. Welcome, Roll Call, Pledge of Allegiance

2. 20 Minute Citizen Input
   (for public comments on items not listed on the agenda. Comments limited to 3 minutes per person with a time limit not to exceed 20 minutes for this item.)

3. Consent Agenda

   3.1. Approve Minutes from the August 9, 2022 City Council Meeting.

080922CC.pdf

3.2. Approve Assignment Order between Lehi City and Jones & Demille Engineering for the FEMA BRIC Study for Dry Creek and Waste Ditch.
Assignment Order - Jones and Demille Engineering - FEMA BRIC Study for Dry Creek and Waste Ditch.pdf

Regular Agenda

4. Consideration of Resolution #2022-76, adopting the Final Budget and Consolidated Fee Schedule for the City of Lehi for Fiscal Year 2023.
Petitioner: Lehi City
Res 2022-76.docx
FY 2023 MAYOR'S FINAL BUDGET.pdf

5. Consideration of Resolution #2022-73, approving an agreement between Lehi City and Hydro Vac Excavation for the installation of pressurized irrigation meters.
Petitioner: Lehi City
Res 2022-73.docx
Hydro Vac Agreement.pdf

6. Consideration of Ordinance #41-2022, amending Title 9 Chapter 2 Article B Section 15, for the installation of secondary water meters.
Petitioner: Lehi City
Ord 41-2022.docx
Exhibit to 9-2B-15 Amendment.docx

7. Consideration of Ordinance #2022-42, amending Title 9 Chapter 2 Article A Section 5, to explicitly limit the use of secondary water for outdoor watering use only.
Petitioner: Lehi City
Ord 42-2022.docx
Exhibit to 9-2A-5 Amendment.docx

8. Consideration of Resolution #2022-74, approving an agreement between Lehi City and SIRQ Construction for pre-construction and construction management/general contractor services for Station 84.
Petitioner: Lehi City
Res 2022-74.docx
Agreement-Station 84 Pre-Construction and Construction Management Services (SIRQ).docx

9. Consideration of Resolution #2022-75, approving an agreement between Lehi City and Navigate CM & Development for the design and construction of a city center and library.
Petitioner: Lehi City
Res 2022-75.docx

Agreement-City Center Design and Construction Management (Navigate).docx

10. Consideration of Final subdivision approval for the 2100 North Subdivision, a 66-lot residential development located at 2100 North 2300 West.
    Petitioner: X Development
    CC Staff Report 2100 North Final Subdivision 08.23.22.docx
    2100 North Subdivision- X Development DRC 08.03.22.docx
    X Development 2100 N Subdivision 08.03.22.pdf
    2100 N Aerial.pdf
    2100 N General Plan.pdf
    2100 N Zoning.pdf

11. Consideration of a Condo Conversion approval for the R&E Properties located at 550 West State Street.
    Petitioner: Mike Hanyon
    CC Staff Report R & E Properties Condo Conversion Final Subdivision 08.23.22.docx
    R&E Properties DRC 8.10.22.docx
    R and E Condo Conversion Subdivision 08.10.22 narrative, plat.pdf
    R&E Aerial.pdf
    R&E General Plan.pdf
    R&E Zoning.pdf

12. Consideration of Preliminary subdivision approval for the River Point Phase 2, a 257-unit residential development located at 1200 North 3600 West.
    Petitioner: Edge Homes
    CC Staff Report River Point Phase 2 Preliminary Subdivision 08.23.22.docx
    River Point Phase 2 Preliminary Subdivsion 07.20.22.docx
    River Point Phase 2 Preliminary Subdivision - narrative.pdf
    River Point Phase 2 Preliminary Subdivision - plans.pdf
    River Point 2 Aerial.pdf
    River Point 2 GP.pdf
    River Point 2 Zoning.pdf

13. Consideration of James Karren's request for approval of the Karren zone change, from R-1-Flex (residential) to R-2 (medium density residential) on 0.75-acres located at 105 South 500 West.
    Petitioner: James Karren
    CC Staff Report Karren R-2 Zone Change 08.23.22.docx
    Karren Zone Change- R-1-Flex to R-2 DRC 07.20.22.docx
    Ord 44-2022.docx
    Karren R-2 Zone Change narrative.pdf
    Karren R-2 Zone Change 7.20.22.pdf
    Karren ZC aerial.pdf

Karren ZC General Plan.pdf
Karren ZC Zoning.pdf

14. Consideration of Ordinance #46-2022, approval of the Skye Area Plan amending the Micron Area Plan and including 2,436 equivalent residential units (ERUs), mixed-use space, a civic site, open space, trails and roadways. Located at approximately Timpanogos Highway and Center Street.
Petitioner: DR Horton
CC Staff Report Skye Area Plan 08.23.22.docx
Skye Area Plan DRC 07.27.22.docx
Ord 46-2022.doc
Skye Area Plan.pdf
Aerial Map.pdf
General Plan Map.pdf
Zoning Map.pdf

15. Municipal Boundary Adjustment between Lehi City and Draper, consisting of 1,035.49-acres of property located at approximately 4600 North 1200 East with TH-5 (transitional holding) zoning.
a. Public Hearing
b. Consideration of Ordinance #43-2022, approving the Skye Lehi Addition Draper-Lehi Municipal Boundary Adjustment.

Petitioner: DR Horton
CC Staff Report Draper Lehi Municipal Boundary Line Adjustment 08.23.22.docx
Draper Lehi Municipal Boundaries Adjustment DRC 06.08.22.docx
Ord 43-2022.docx
Narrative - Draper Annexation.pdf
Skye - Lehi Addition Boundary Adjustment Plat.pdf
Aerial Map.pdf
General Plan Map.pdf
Zoning Map.pdf

16. Consideration of Ordinance #47-2022, a General Plan Amendment for the Skye-Lehi Addition (boundary adjustment between Lehi City & Draper), on approximately 1,035.49-acres of property with the proposed General Plan Designations of Environmentally Sensitive Area (ESA), High Density Residential (HDR), Medium Density Residential (MDR), and Low Density Residential (LDR).
Petitioner: DR Horton
CC Staff Report General Plan Land Use Designations Draper Boundary Line Adjustment 08.23.22.docx
GP Land Use Designations-Draper Boundry Line DRC 07.27.22.docx
Ord 47-2022.docx

Proposed General Plan Designations Map.pdf
Aerial Map.pdf
General Plan Map.pdf
Zoning Map.pdf

17. Consideration of the Skye Area Plan Second Amendment Concept Plan including 985 additional residential units in the Draper-Lehi Municipal Boundary Line Adjustment Area.
Petitioner: DR Horton
CC Staff Report Skye Area Plan 2nd Amendment Concept 08.23.22.docx
Skye Area Plan 2nd Amendment DRC 07.27.22.docx
Skye Area Plan 2nd Amendment Concept narrative.pdf
Skye Area Plan 2nd Amendment Concept.pdf
Skye AP 2nd Amendment Concept Aerial.pdf
Skye AP 2nd Amendment Concept GP.pdf
Skye AP 2nd Amendment Concept Zoning.pdf
DR Horton Concept.JPG
Skye Upper Slopes.JPG

18. Consideration of Ordinance #48-2022, the Kelly zone change, from RA-1 (residential agriculture) to NC (neighborhood commercial) on 1.08-acres located at 3055 North 1200 West.
Petitioner: Lee and Mary Kelly
CC Staff Report Kelly Zone Change 08.23.22.docx
Kelly Zone Change- RA-1 to NC DRC 07.20.22.docx
Ord 48-2022.docx
Kelly Zone Change narrative.pdf
Kelly Zone Change.pdf
Aerial Map.pdf
General Plan Map.pdf
Zoning Map.pdf

19. Consideration of Ordinance #45-2022, a Development Code Amendment to Table 37.080 and Chapter 16 PRD updating the parking requirements for multi-family projects.
Petitioner: Lehi City
CC Staff Report Multi-Family Parking Dev Code Amendment 08.23.22.docx
Multi-Family Parking Code DRC 07.06.22.docx
Ord 45-2022.docx
Ch16PRD 6.30.22.pdf
TBL37.080 Parking Condo Tandem 06.30.22.pdf
Engage Lehi Survey Responses.pdf

20. Consideration of Ordinance #49-2022, approving an update to the Moderate Income Housing Plan Goals, Strategies and Timeline to come into conformance with State requirements.

Petitioner: Lehi City
CC Staff Report Moderate Income Housing Plan 08.23.22.docx
Moderate-Income Housing Goals and Strategies DRC 07.27.22.docx
Ord 49-2022.docx
Moderate Income Housing Updated Goals, Policies and Timeline.pdf

21. Adjournment

- Public is invited to attend all City Council Meetings
- In compliance with the Americans with Disabilities Act, persons in need of special accommodations should contact the City Recorder at 385-201-2269
- This agenda has been properly posted and a copy provided to the local news media.

Agenda Item No: 2.1

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Teisha WIlson
Submitting Department:
Item Type: Discussion
Agenda Section: Presentations and Reports

Subject:
Discussion of a budget amendment for a new job position.

Suggested Action:

Attachments:

Agenda Item No: 3.1

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Teisha WIlson
Submitting Department:
Item Type: Discussion
Agenda Section: Joint Planning Commission & City Council Discussion

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Subject:
Update on UTA's Station Area Plan Study for the Thanksgiving Point Frontrunner Station.

Suggested Action:

Attachments:

Agenda Item No: 3.1

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Teisha WIlson
Submitting Department:
Item Type: Action Item
Agenda Section: Consent Agenda

Subject:
Approve Minutes from the August 9, 2022 City Council Meeting.

Suggested Action:

Attachments:

080922CC.pdf

153 North 100 East
Lehi, UT 84043
(801) 768-7100

Minutes of the **Pre Council and Regular Session** of the **Lehi City Council** held Tuesday, **August 9, 2022,** at Lehi City in the Council Chamber, 153 N 100 E. Lehi, UT.

Members Present: Mark Johnson, Mayor
Paige Albrecht, Council Member
Chris Condie, Council Member
Katie Koivisto, Council Member
Paul Hancock, Council Member
Mike Southwick, Council Member

Others Present: Cameron Boyle, Assistant City Administrator; Beau Thomas, Deputy City Administrator; Ryan Wood, City Attorney; Lorin Powell, City Engineer; Kim Struthers, Planning Director; Dean Lundell, Finance Director; Chief Jeremy Craft, Fire Department; Andy Gowans, Management Analyst; and Teisha Wilson, City Recorder.

Pre Council, 5:30 p.m.

1. Welcome and Opening Comment

Mayor Johnson welcomed everyone and noted that all Councilmembers were present. Councilor Koivisto gave the opening comment.

2. Presentations and Reports

2.1 Truth in Taxation Update

Dean Lundell, Finance Director, explained how the property tax rate works in the State of Utah. He noted that Lehi's allotment is only a small portion of what people pay in total for their property taxes. He stated that anytime a city proposes a higher rate then what the certified rate is, then we must go through a Truth in Taxation process. He said that he plans to present at the public hearing next week. He also explained that if that tax passes, then it will go to fund two new Police Officer positions.

2.2 Discussion of green waste collection termination

Dean Lundell explained that there is no green waste collection right now because it is no longer being accepted. Residents still have a green waste can and may use it for green waste and any other garbage. The issue now is that the city is still charging a lesser green waste fee which doesn't cover the actual cost to pick up the can. Options were discussed such as charging the regular garbage rate for the can, or offering to pick up the cans. Blake Leonelli, with Waste Management, stated that picking up the cans could be a logistical challenge. He said that they are exploring some other options with includes a possible site that may be willing to accept the green waste. He will provide updates to the Council after they've explored other options.

3. Agenda Questions

None.

DRAFT

4. Administrative Report
Joel Eves, Power Director, introduced Carl Sundstrom who will be working in the Fiber Department.

5. Mayor and Council Reports
The Council gave a report on their assigned committees.

6. Consideration of Adjourning into a Closed Session to discuss the purchase, exchange, or lease of real property.

Motion: Councilor Hancock moved to Adjourn into a Closed Session to discuss the purchase, exchange, or lease of real property. Councilor Koivisto seconded the motion.

Roll Call Vote: Councilor Albrecht, Yes; Councilor Condie, Yes; Councilor Hancock, Yes; Councilor Koivisto, Yes; and Councilor Southwick, Yes. The motion passed unanimously.

The meeting adjourned into a Closed Session at approximately 6:24 p.m.
The meeting resumed at approximately 7:00 p.m.

Regular Session, 7:00 p.m.

1. Welcome, Roll Call, Pledge of Allegiance
Mayor Johnson welcomed everyone and noted that all Councilmembers were present. Mayor Johnson led the Pledge of Allegiance.

2. 20 Minute Citizen Input
None.

3. Consent Agenda
3.1) Approve Minutes from the July 26, 2022 City Council Meeting.

3.2) Approve Purchase Orders

3.3) Approve Surplus Items

Motion: Councilor Condie moved to approve the consent agenda items. Councilor Koivisto seconded the motion.

Roll Call Vote: Councilor Albrecht, Yes; Councilor Condie, Yes; Councilor Hancock, Yes; Councilor Koivisto, Yes; and Councilor Southwick, Yes. The motion passed unanimously.

4. Consideration of Resolution #2022-67, authorizing the Red Mesa Tapaha Project amended and restated transaction schedule under the Power Supply Agreement with Utah Associated Municipal Power Systems (UAMPS).

Joel Eves, Power Director, stated that the adjustment was necessary to account for rising costs and supply chain issues.

Motion: Councilor Southwick moved to approve Resolution #2022-67, authorizing the Red Mesa Tapaha Project amended and restated transaction schedule under the Power Supply Agreement with Utah Associated Municipal Power Systems (UAMPS). Councilor Hancock seconded the motion.

Roll Call Vote: Councilor Albrecht, Yes; Councilor Condie, Yes; Councilor Hancock, Yes; Councilor Koivisto, Yes; and Councilor Southwick, Yes. The motion passed unanimously.

5. Consideration of Resolution #2022-69, approving an agreement with Blu Line Designs for the design of Family Park.

Motion: Councilor Hancock moved to approve Resolution #2022-69, approving an agreement with Blu Line Designs for the design of Family Park. Councilor Koivisto seconded the motion.

Roll Call Vote: Councilor Albrecht, Yes; Councilor Condie, Yes; Councilor Hancock, Yes; Councilor Koivisto, Yes; and Councilor Southwick, Yes. The motion passed unanimously.

6. Consideration of Resolution #2022-68, approving a second amended Interlocal Cooperation Agreement between Utah County and Lehi City for the SS Crossroads Blvd/Lehi Main Street Project.

Lorin Powell stated that this amended agreement was necessary as they continue to study the effects on the wetlands near the project.

Motion: Councilor Southwick moved to approve Resolution #2022-68, approving a second amended Interlocal Cooperation Agreement between Utah County and Lehi City for the SS Crossroads Blvd/Lehi Main Street Project. Councilor Koivisto seconded the motion.

Roll Call Vote: Councilor Albrecht, Yes; Councilor Condie, Yes; Councilor Hancock, Yes; Councilor Koivisto, Yes; and Councilor Southwick, Yes. The motion passed unanimously.

7. Consideration of Preliminary subdivision approval for the Lehi Medical Phase 2, an 8-lot residential development located at 1090 West 3300 North.

This item was heard after item #9

8. Consideration of Ordinance #40-2022, a Development Code Amendment to Chapter 28, Resort Community Zone, amending the percentages of resort, residential, and commercial uses with the zone.

This item was also heard after item #9

DRAFT

9. Consideration of amending the setback table on the Gardner Point Phase 5, 6, and 7 Plats, to match the setbacks in the Exchange Subdivision.

Brandon Watts was representing the applicant. Mr. Struthers stated that there is still adequate room for driveway parking, but the footprint on the front living space can be closer to the sidewalk. He also stated that this only applies to single family homes. Mr. Watts stated that this will allow for more variety in the homes.

The Council discussed concerns with the driveway length. Kim Struthers explained that there was a misunderstanding in the DRC meeting and that the two comments from Power and Water can be stricken from the record.

Motion: Councilor Condie moved to approve the amendment to the setback table on the Gardner Point Phase 5, 6, and 7 Plats, as proposed in the packet; and noting that two of the comments from the DRC are not applicable because there was a misunderstanding. Councilor Southwick seconded the motion.

Councilor Hancock suggested adding to the motion that the two individuals that made the DRC comments confirmed that they are okay with removing their comments.

Amended Motion: Council Condie amended him motion to include Council Hancock's comments. Councilor Southwick seconded the amendment to the motion.

Roll Call Vote: Councilor Albrecht, Yes; Councilor Condie, Yes; Councilor Hancock, Yes; Councilor Koivisto, No; and Councilor Southwick, Yes. The motion passed with 4 in favor and 1 opposed.

7. Consideration of Preliminary subdivision approval for the Lehi Medical Phase 2, an 8-lot residential development located at 1090 West 3300 North.

Jim Ballardson was representing the applicant. He stated that this will have 7 building lots.

Motion: Councilor Condie moved to grant Preliminary subdivision approval for the Lehi Medical Phase 2, a 7- building lot residential development located at 1090 West 3300 North.; including any Development Review Committee and Planning Commission comments. Councilor Koivisto seconded the motion.

Roll Call Vote: Councilor Albrecht, Yes; Councilor Condie, Yes; Councilor Hancock, Yes; Councilor Koivisto, Yes; and Councilor Southwick, Yes. The motion passed unanimously.

8. Consideration of Ordinance #40-2022, a Development Code Amendment to Chapter 28, Resort Community Zone, amending the percentages of resort, residential, and commercial uses with the zone.

Jonathan Bankhead was representing the applicant. He stated that this is just a step in the process before they submit for the final Area Plan Amendment.

DRAFT

There was discussion regarding the commercial percentages and the difference between office and retail. There was discussion about tabling this item to allow more time to work out more specific percentages. It was determined that they would move forward for now, and that when the Area Plan is reviewed there should be another code amendment that defines the retail and office percentages within the Commercial zone.

Motion: Councilor Hancock moved to approve Ordinance #40-2022, a Development Code Amendment to Chapter 28, Resort Community Zone, amending the percentages of resort, residential, and commercial uses with the zone; including any Development Review Committee and Planning Commission comments; and noting that they will anticipate another code amendment in conjunction with the Area Plan Amendment to split out the commercial into retail and office elements. Councilor Koivisto seconded the motion.

Roll Call Vote: Councilor Albrecht, Yes; Councilor Condie, Yes; Councilor Hancock, Yes; Councilor Koivisto, Yes; and Councilor Southwick, Yes. The motion passed unanimously.

10. Consideration of Ordinance #39-2022, a Development Code Amendment to Chapter 3 Administration and to Figure 7 changing the Public Hearing requirements for Concept Plans.

Mr. Struthers stated that this is amending the public hearing requirements.

Motion: Councilor Koivisto moved to approve Ordinance #39-2022, a Development Code Amendment to Chapter 3 Administration and to Figure 7 changing the Public Hearing requirements for Concept Plans; including any Development Review Committee and Planning Commission comments. Councilor Codie seconded the motion.

Roll Call Vote: Councilor Albrecht, Yes; Councilor Condie, Yes; Councilor Hancock, Yes; Councilor Koivisto, Yes; and Councilor Southwick, Yes. The motion passed unanimously.

11. Consideration of Resolution #2022-70, appointing a new Board Member to the Lehi City Historic Preservation Commission.

Motion: Councilor Southwick moved to approve Resolution #2022-70, appointing a new Board Member to the Lehi City Historic Preservation Commission. Councilor Albrecht seconded the motion.

Roll Call Vote: Councilor Albrecht, Yes; Councilor Condie, Yes; Councilor Hancock, Yes; Councilor Koivisto, Yes; and Councilor Southwick, Yes. The motion passed unanimously.

12. Consideration of Resolution #2022-71, demanding that the owner of Cemetery Lot #293 file with the City Recorder a Notice of Claim to the lot.

DRAFT

Motion: Councilor Condie moved to approve Resolution #2022-71, demanding that the owner of Cemetery Lot #293 file with the City Recorder a Notice of Claim to the lot. Councilor Koivisto seconded the motion.

Roll Call Vote: Councilor Albrecht, Yes; Councilor Condie, Yes; Councilor Hancock, Yes; Councilor Koivisto, Yes; and Councilor Southwick, Yes. The motion passed unanimously.

13. Adjournment

With no further business to come before the City Council at this time, Councilor Koivisto moved to adjourn the meeting. Councilor Southwick seconded the motion. The motion passed unanimously. The meeting adjourned at approximately 8:15 p.m.

Approved: August 23, 2022 Attest:

_____ _____

Mark Johnson, Mayor Teisha Wilson, City Recorder

DRAFT

Agenda Item No: 3.2

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Teisha WIlson
Submitting Department:
Item Type: Action Item
Agenda Section: Consent Agenda

Subject:
Approve Assignment Order between Lehi City and Jones & Demille Engineering for the FEMA BRIC Study for Dry Creek and Waste Ditch.

Suggested Action:

Attachments:

Assignment Order - Jones and Demille Engineering - FEMA BRIC Study for Dry Creek and Waste Ditch.pdf

ASSIGNMENT ORDER

In accordance with the General Services Agreement Between Owner and Consultant, dated December 8, 2021 ("Agreement"), Owner and Consultant agree as follows:

1. ***Specific Project Data.***

   Project Title: Lehi City ▪ FEMA BRIC Study for Dry Creek and Waste Ditch (the "Assignment")

   Description: Professional engineering services

2. ***Services of Consultant.*** Consultant's services shall be provided consistent with and limited to the standard of care applicable to such services, which is that Consultant shall provide its services consistent with the professional skill and care ordinarily provided by consultants practicing in the same or similar locality under the same or similar circumstances. Consultant incorporates herein by reference those services set forth in Section A1.01 of Exhibit A of the Agreement and adds the following services specific to the Assignment:

   a. *See proposal dated August 16, 2022, attached hereto as Attachment A and incorporated herein by reference, setting forth the detailed scope of work.*

   Owner's Responsibilities. Owner shall have those responsibilities set forth in Section A.2.01 of Exhibit A of the Agreement.

3. ***Times for Rendering Services***. Consultant's services will be performed by October 13, 2023.

4. ***Payments to Consultant.*** Owner shall pay Consultant for the above assignment as follows: *Lump sum fee of $200,000. Lump sum progress payments may be invoiced monthly by percentage of completion throughout the project.*

Execution of this Assignment Order by Owner and Consultant shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Consultant is authorized to begin performance upon receipt of a copy of this Assignment Order signed by Owner.

JONES & DEMILLE ENGINEERING, INC.	LEHI CITY
Signature	Signature
CTO	
Title	Title
August 17, 2022	
Date	Date

2012-034

August 16, 2022

Brad Kenison, PE
Assistant City Engineer
Lehi City
Via email: bkenison@lehi-ut.gov

RE: Engineering Services - FEMA BRIC Study for Dry Creek and Waste Ditch

Dear Brad:

We appreciate the City selecting Jones & DeMille to work on this very important Study for Lehi City. We understand that the City is currently involved in the NRCS American Fork Watershed Plan EA along with one other community. While the modeling effort completed sufficiently addressed the needs of the NRCS planning project, a more complete and thorough analysis of these channels is warranted. This analysis will be completed as part of the FEMA BRIC study. The major objectives of the study are listed below:

- Prepare a Comprehensive Flood Conveyance Masterplan, focusing major flood conveyance throughout the city. The study will consider how best to preserve flood capacity, how to create additional flood capacity if needed, validate and/or educate FEMA floodplain mapping, and be a tool for the city in managing development.
- Help the city proactively manage development along major flood conveyance features, by providing detailed maps, flood extents, summary tables, etc. - with recommendations on how best to advise developers.
- Validate and/or educate FEMA floodplain mapping. Identify areas were updating FEMA floodplain maps via a LOMR would be beneficial due to inaccuracy. Also prepare hydraulic models where there are not FEMA floodplains to help the city proactively advise development. This will preserve flood conveyance capacity and prepare developers for the inevitable future when these areas are mapped.
- Review NRCS hydrology and hydraulic studies and provide recommendations for design information to include in this study (there are currently several studies with varying levels of detail and different results).
- Augment the current NRCS hydrology as approved by the City and prepare additional hydraulic models of the system, which can be updated as development occurs and project are constructed along major conveyance. This includes gathering survey data to FEMA standards for some structures where it is not available.

- Summarize recommended projects and outline funding opportunities where applicable. This includes final design and construction projects to be considered for further funding from FEMA BRIC or another source, as well as FEMA floodplain mapping projects (LOMRs).
- Position the city for further final design and construction funding by preparing preliminary information to use for funding sources such as FEMA BRIC, the NRCS, or other sources. This includes preparing project descriptions, maps, and considering the economic benefits to justify funding.

Jones & DeMille Engineering (JDE) has the necessary resources and expertise to complete this important project. The proposed major key scope of work tasks to meet the project objectives is as follows:

SCOPE OF WORK

1. **Conduct a field survey**. In previous modeling efforts, LIDAR data has been used for the channels. To refine the model for a more accurate analysis actual field survey data at key locations will be gathered. Working with the City we will identify key locations to be surveyed. A potential starting point could be reviewing the 60 plus locations that was identified by the USACE as part of their study. These locations included channel cross-sections and key structures. The survey will focus on areas that were not surveyed as part of the previous FEMA floodplain map update and will be completed per FEMA guidelines to allow for it to be used for future FEMA floodplain mapping if needed.

2. **Soils Survey.** Representative soil samples will be gathered and tested in our labs to confirm or include accurate soil classifications used in the model. This will be considered in the development of hydrology parameters as well as the hydraulic calculations for channel erosion/scour.

3. **Update/Refine the Hydrology and Hydraulic Models.** We will update the model that we developed for the NRCS project with the information gathered in the previous two tasks along with any other available or updated information from the City, such as planned development improvements. The model will be animated and used as a design tool throughout the project. Flood maps with depth and velocity indicators will be developed. Proposed alternatives will be considered using the food model to educate the sizing and practicality of solutions. The model will also show the flood level of protection and capacity of existing drainage features such as channels and culverts.

4. **Project Alternatives Development.** A range of alternatives will be developed and considered. Different options that would provide a global solution to flooding issues will be considered. These options will be shown conceptually on GIS maps to be used to strategize and discuss with the City on preferred options. A series of work meetings will be held with the City to receive feedback and discuss potential issues and solutions. Alternative considerations will include level of flood protection provided, land ownership, environmental permitting, and other engineering items.

5. **Cost Estimates and Financial Benefits**. Preliminary cost estimates will be prepared that include final design, construction, and land costs. These will consider that a project may be built several years into the future, and account for inflation. A high/screening level economic Cost Benefit Analysis (BCA) will be used to estimate the financial benefits.

6. **Alternatives Comparison and Benefit Summary**. An alternatives matrix will be developed showing the benefits of food protection and its impacts. The matrix will include flood risk impacts, the project footprint required, the initial cost of the improvements, and the financial benefit of the improvements. A series of work meetings will be held with the City to review and confirm direction on alternatives, and aid in the selection of preferred alternative(s). GIS maps will be used throughout the discussions and reference to the alternative's matrix.

7. **FEMA Floodplain Mapping Review**. Review current FEMA floodplain mapping and identify areas that would benefit from mapping updates via the LOMR process. Show differences in floodplain boundaries and outline benefits that could results from more accurate floodplains. Compile list of remapping project areas and prioritize based on benefit and funding opportunities. In areas that are not mapped by FEMA, prepare maps that will help the city proactively manage development and preserve flood conveyance capacity.

8. **Reports**. Documentation will be developed with funding applications in mind. The report will include a summary of the analysis leading the recommended proposed project(s). The need for a project will be developed including pictures and history, if available. Information on proposed project features, costs, benefits, the BCA, and other pertinent information will be developed. Landownership and environmental permitting needs will be outlined. GIS mapping of modeling results and proposed project features will be included. The report will include a suggested project schedule and options/strategies on pursuing additional funding for final design and construction. Alternatively, we can also evaluate the option of a GIS StoryMap which provides a concise, more presentable deliverable that is better suited for presentation interaction.

9. **Added Project Scope**. While scoping this project with the City, we will explore the opportunity of expanding the project study area northeast of I-15, within the City boundary, with any remaining BRIC funding.

SCHEDULE

While the schedule in the FEMA funding application is a two-year completion schedule we feel that a reasonable schedule completes the study by October 2023. However this schedule is flexible based on the needs of the project and City to be reduced or increased. Information critical to development in the City may be provided earlier.

FEES

We understand that the available funding for this project is $200,000. We have outlined a project that maximizes the scope for the available funding. If we have overestimated the level of effort for any scope tasks, the funding from that task may be available to complete additional scope items. A breakdown of the level of effort is provided as an attachment. Any adjustments to the scope of work can be completed for a negotiated lump sum fee or according to JDE's standard hourly rates.

CLOSURE

We appreciate and look forward to the opportunity to work on this important project. Our team has the proven capabilities to complete this work in a timely and efficient manner. We look forward to helping you shape the quality of life of those you serve. Please review this proposal and let us know if there are any questions or concerns.

Sincerely,

JONES & DeMILLE ENGINEERING, INC.

Regional Director

Attachment: Project Management Plan

		Personnel			Ted Mickelsen	Parker Vercimak	Hayden Coombs	Tyson Roper	Brandon Barney	David Blackburn	Ricky Anderson	Jesse Miller	Emily Johnson	Mark Rappleye				
		Title			Regional Director	Project Manager	Project Engineer	Graduate Engineer	Survey Office	Survey Field	Technical Review	GIS Specialist	Admin Assistant	Materials Technician				
Project Management Plan - Lehi FEMA BRIC Study - Dry Creek and Waste Ditch Channels		Schedule													TOTALS			
Item	**Description**	**Start Date**	**Days**	**Finish Date**	$ 209.00	$ 154.00	$ 141.00	$ 116.00	$ 133.00	$ 100.00	$ 171.00	$ 105.00	$ 71.00	$ 127.00	*Total Hrs*	*Labor Total*	*Expense Total*	*Grand Total*
1	Kickoff workshop	08/22/22	5	08/26/22	4	4	4	4					4.5		20.5	$ 2,799.50	$ 277.00	$ 3,076.50
2	Project management and meetings	08/22/22	300	10/13/23	20	40	12	16					40		128	$ 16,728.00	$ 351.50	$ 17,079.50
3	Identify survey locations, review with City and field survey	08/29/22	60	11/18/22	4	8	16	16	40	80		8			172	$ 20,340.00	$ 2,650.00	$ 22,990.00
4	Soils survey and testing	08/29/22	60	11/18/22				20						24	44	$ 5,368.00		$ 5,368.00
5	Model refining/update and analysis	11/21/22	90	03/24/23	8	30	100	64			20				222	$ 31,236.00		$ 31,236.00
6	Establish channel design criteria	03/27/23	60	06/16/23	8	20	20	20							68	$ 9,892.00		$ 9,892.00
7	Development of project alternatives and comparison	02/06/23	90	06/09/23	20	50	60	40			12	24			206	$ 29,552.00		$ 29,552.00
8	FEMA Floodplain Mapping Review	02/06/23	90	06/09/23	10	20	40				12				82	$ 12,862.00		$ 12,862.00
9	Comparison review with City and alternatives selection	06/12/23	30	07/21/23	20	30	40	40			8	8			146	$ 21,288.00		$ 21,288.00
10	Cost estimates and financial benefits	02/06/23	120	07/21/23	16	20	16	24			8				84	$ 12,832.00		$ 12,832.00
11	Documentation and prepare reports	07/24/23	60	10/13/23	24	40	24	40					24		152	$ 20,904.00		$ 20,904.00
12	Prepare GIS storybook for presentation	07/24/23	60	10/13/23	4	12	12	12				60	12		112	$ 12,920.00		$ 12,920.00
	Totals				**138**	**274**	**344**	**296**	**40**	**80**	**60**	**100**	**80.5**	**24**	**1,436.5**	**$196,721.50**	**$3,278.50**	**$ 200,000.00**

Agenda Item No: 4

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Teisha WIlson
Submitting Department:
Item Type: Resolution
Agenda Section: Regular Agenda

Subject:
Consideration of Resolution #2022-76, adopting the Final Budget and Consolidated Fee Schedule for the City of Lehi for Fiscal Year 2023.

Suggested Action:

Attachments:

Res 2022-76.docx

FY 2023 MAYOR'S FINAL BUDGET.pdf

RESOLUTION NO. 2022-76

A RESOLUTION ADOPTING THE FINAL BUDGET AND CONSOLIDATED FEE SCHEDULE FOR THE CITY OF LEHI FOR FISCAL YEAR 2023 (JULY 1, 2022 – JUNE 30, 2023).

WHEREAS, the City of Lehi has previously adopted a tentative budget and fee schedule for Fiscal Year 2023; and

WHEREAS, at the time said tentative budget and fee schedule were adopted, a public hearing was scheduled and notice was given at least seven (7) days prior to the time of said hearing, describing the proposed budget and providing the time and place for such public hearing; and

WHEREAS, a public hearing was duly held at the time and place provided in said notice; and

WHEREAS, the City Council received all competent evidence offered in support of and opposed to said proposed budget amendments and it appearing that the proposed budget is in accordance with the provisions of Section 10-6-101 et seq., Utah Code Annotated (1953); and

WHEREAS, all of said proceedings were duly and regularly conducted;

THEREFORE, BE IT RESOLVED by the Mayor and City Council of the City of Lehi, Utah that the budgets as set forth for the fiscal year ending June 30, 2023 are hereby adopted as proposed.

This resolution shall take effect immediately.

Approved and Adopted by the City Council of Lehi City this 23rd day of August, 2022.

_____
Mayor Mark Johnson
Lehi City

Attest:

_____
Teisha Wilson, City Recorder

LEHI CITY CORPORATION

MAYOR'S FINAL BUDGET FY 2023

EST 1852

LEHI CITY

PIONEERING UTAH'S FUTURE

LEHI CITY CORPORATION

MAYOR'S FINAL BUDGET FY 2023

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LEHI CITY CORPORATION

MAYOR'S FINAL BUDGET FY 2023

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LEHI CITY CORPORATION

MAYOR'S FINAL BUDGET FY 2023

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153 North 100 East
Lehi, Utah 84043-1895
801-768-7100

April 12, 2022

Dear City Council members,

I am pleased to present to you a budget for the upcoming 2022-23 fiscal year. This budget is the culmination of many hours of work which began with the budget retreat in February. The budget is presented based on priorities identified by the City Council and proposals presented by City staff. I commend our City Departments for their dedication to providing quality services for our residents and keeping within budget restraints. All requests were made with this focus in mind and would enhance services provided by the City. Unfortunately, based on budget estimates and funding availability, many requests will need to be reconsidered next year. Careful consideration was made to maintain growth at a conservative level consistent with a growing community

Lehi continues to be desired location for both commercial and residential growth evidenced by 1,068 new permits for homes and businesses in the City. Census estimates for 2021 show Utah County added 21,843 residents, ranking 10th in the entire country for numerical increase. Rapid growth brings opportunities as well as challenges. More residents increase pressure on City infrastructure. Therefore, continued capital investments must occur. This budget reflects investment in parks, roads, utilities, and building assets. These investments need to occur now in order to prepare for the City's future.

Lehi's growth can be witnessed financially in both tax revenues and other general revenues. Despite a year still impacted by the worldwide pandemic, sales tax revenues have continued to grow at a healthy pace. Property taxes also increased, but at slower growth as guided by Utah property tax laws. Developing a solid and consistent tax base is critical to the City's long-term financial health.

Budget forecasts continue to be made conservatively for the City to respond to changing conditions. The intent is to maintain a high level of service, take care of the City's employees, while remaining able to respond to economic realities. We continue to follow City budgeting policies and best practices that allow for flexibility in the future. This requires attention be paid to growth in both revenues and expenditures.

In evaluating the overall city budget, expenditures in all funds for the fiscal year 2023 total $280,700,620. This year's budget emphasizes an investment in city infrastructure as well as city employees. Economic conditions have led to recent inflation rates of over 7%. This rise in costs effects city purchases as well as employee costs. In response to economic and market conditions, employees can realize a pay increase of up to 4.0% based on their performance.

Taxation laws in Utah do not grow property taxes as property values increase. Lehi City has not adjusted its property tax rate above the certified rate in over two decades. In keeping with responsible tax and public policy, a small increase is budgeted above the certified rate. The proposed increase would be

3.4% over the estimated certified rate. The impact on a primary residence valued at $554,650 is estimated to be $1.25 per month.

The City's growth has created needs for facility upgrades. Growth in the West side of the City will require the construction of a new fire station in that area in order keep response times at an acceptable level. Also, the construction of the downtown civic center is ready to proceed with the first phase including an expansion of City Hall and the relocation of the City Library. Both of these projects are included in this budget.

The City's recently announced partnership with Strata to construct a municipal fiber to the home network continues to proceed. Agreements are nearly finalized. Afterwards, construction will begin, which will allow fast, reliable internet to all City residents. Anticipated construction of the entire system is 3-4 years. Other infrastructure investments in City utility infrastructure are included in this budget as well.

Last November, Lehi residents voted to approve a .1% sales tax, which can be used to fund recreation, arts, and parks programs and facilities. In Lehi, this program will be known by the acronym PARC (park, arts, recreation, and culture). The PARC program will allocate 70% of the new tax to park facilities and 30% of the tax to arts and culture programs. Current estimates anticipate $1.3 million in annual revenue from the PARC tax. The allocation for arts and culture funds will be approved by the City Council following a recommendation from the newly formed PARC Advisory Committee. Last year's budget identified the first $5 million in PARC facility funds to be used for Mellor Rhoades Park. However, due to increased costs and complications with construction, a choice must be made to proceed with either Dry Creek Park or Mellor Rhoades Park or reduce the scope of both facilities to smaller but functional designs with the intent to expand them later when more funding becomes available.

The City has expended significant resources and time in acquiring land for public parks and recreation. Included in this year's budget are several park projects of considerable size. $5.0 million was allocated in last year's budget for Family Park. An additional $2.0 million is included in the proposed budget to fulfill the construction of an all-abilities playground at Family Park. Holbrook Farms Park and Cold Springs Ranch Park are two parks on the West side of the City, which will be constructed from impact fees.

In order to focus on long-term needs, the city consistently evaluates rates charged for utilities. In accordance with rate studies for culinary water, pressurized irrigation, and storm water, the culinary and pressurized irrigation fees will each increase three percent over the previous year and the storm drain fee will increase from $5.00 to $5.25 per household. The City's power rates are currently under review. Recent changes in the nationwide market for electrical power have increased the cost to purchase electricity. Adjustments will be need for the City power revenues to keep pace with these increased costs. This study will be completed later this year. Upon completion, a long-term plan will be developed to keep the City's power fund on a solid financial foundation.

I believe this budget, as proposed, addresses the needs which will be of greatest benefit to city residents and city employees. As we work closely with the development community, the City's rapid growth can continue in a responsible way. Lehi continues to be on solid financial footing with the aim to secure a high quality of life for current and future Lehi residents.

Respectfully

Mayor Mark Johnson

Guiding Financial Principles

While the City's long-term goals and objectives guide what the budget accomplishes, the accomplishment of these goals and objectives through the budget process is based on following guiding principles:

Budgeting

- Lehi City should finance services rendered to the general public, such as police, fire, streets, and parks, from revenues imposed on the general public, such as property and sales taxes. Special services rendered to specific groups of residents should be financed by user fees, impact fees, license and permit fees, or special assessments.

- Lehi City should balance all budgets annually, in accordance with Utah law, which states the following:
    - The total of the anticipated revenues shall equal the total of appropriated expenditures (Section 10-6-110, U.C.A.)
    - The governing body of any city may not make an appropriation in the final budget of any fund in excess of the estimated expendable revenue for the budget period of the fund (Section 10-6-117, U.C.A.)

- Revenue projections will be based on recent trends and current economic conditions. Projects will be conservative in order to reduce the chance of revenue shortfalls.

- The city will use one time or temporary funds for capital or other nonrecurring purposes. These funds will not be used to fund on-going expenditures.

Taxation

- Lehi recognizes that Utah property tax regulation do not keep property tax revenue current with inflation. The City will lose purchasing power associated with the certified tax rate and consider adjusting property tax rates every two years. Increases in the property tax rate will primarily be increased to make tax revenue consistent with inflation.

Debt

- Lehi City should strive for inter-generational fairness. Thus, each generation of taxpayers should pay its fair share of the long-range cost of city services.

- Debt will be only issued for capital projects, not on-going operations. Payments for debt service will not extend beyond the useful life of the asset financed.

- Lehi City will adhere strictly to all bond covenants and strive to maintain the best possible credit rating.

Reserves

- Lehi City should allow for a reasonable surplus (fund balance) to accumulate for the following purposes:
    - To provide sufficient working capital
    - To provide a cushion to absorb emergencies such as floods, earthquakes, etc.
    - To provide for unavoidable shortfalls in revenues

- Lehi City's targeted general fund reserve is 20% - 25% of annual general fund revenues.

- Due to the high investment in capital assets and risk exposure, all utility funds will maintain an unrestricted cash reserve of 180 days.

Capital Expenditures

- Proprietary funds are intended to recover the full cost of services. These costs include operations, administration, and asset replacement.

- Lehi will maintain long-term capital plans accounting for the construction and replacement of city facilities and infrastructure.

Proprietary Funds

- The city's enterprise funds will cover the full cost of the service, including a reasonable allocation of administration costs.

- Key indicators will be measured annually to monitor reserve balances, capital replacement, and debt levels.

- Internal service funds will accurately allocate costs to individual departments and funds. The city will maintain the following internal service funds :
    - Fleet
    - Information Technology
    - Risk Management
    - Facilities

Financial Planning

- Lehi City exists only to serve the needs of its residents. Since these needs are continually changing, the City should consistently receive resident feedback based on both long-term and current needs.

- The City will develop multi-year planning and budgeting for personnel: capital projects; equipment and technology replacement; utility rates; and resident tax burden.

GENERAL FUND REVENUES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Taxes						
Current property taxes	$ 11,558,022	$ 11,650,000	$ 12,864,701	$ 12,847,201	26%	$ 1,197,201
911 Tax (pass through)	-	-	-	-	0%	-
General sales tax	17,031,535	14,286,817	16,751,312	17,708,256	36%	3,421,439
Franchise taxes	4,953,608	4,900,000	4,900,000	4,900,000	10%	-
Cell phone taxes	577,774	550,000	550,000	550,000	1%	-
Innkeeper taxes	206,605	180,000	180,000	180,000	0%	-
Total Taxes	**$ 34,327,544**	**$ 31,566,817**	**$ 35,246,013**	**$ 36,185,457**		
License and Permits						
Business licenses	$ 106,194	$ 115,000	$ 115,000	$ 115,000	0%	-
Building permits	3,983,467	2,905,000	3,229,000	3,229,000	7%	324,000
Accessory Dwelling Unit	17,037	-	-	-	0%	-
Plan reviews	2,141,534	1,625,000	1,625,000	1,625,000	3%	-
Micron plan review & inspection	-	75,000	75,000	75,000	0%	-
Inspection fees	886,240	700,000	700,000	700,000	1%	-
State 1% building permit fees	41,021	20,000	20,000	20,000	0%	-
Total License and Permits	**$ 7,175,493**	**$ 5,440,000**	**$ 5,764,000**	**$ 5,764,000**		
Intergovernmental Revenue						
Library grant	$ 14,500	$ -	$ -	$ -	0%	-
Fire department grants	99,652	268,568	268,568	268,568	1%	-
County recreation grants	34,280	32,000	32,000	32,000	0%	-
State grants	24,898	75,000	75,000	75,000	0%	-
Grants	4,777,154	79,900	70,000	70,000	0%	(9,900)
Sr citizen building rental income	-	5,000	5,000	5,000	0%	-
Senior citizen income	16,693	50,000	50,000	50,000	0%	-

GENERAL FUND REVENUES-CONTINUED

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Intergovernmental Revenue- Continued						
Alpine District / Police reimbursement	103,000	103,000	103,000	103,000	0%	-
County fire allocation	11,545	15,000	15,000	15,000	0%	-
Total Intergovernmental	**$ 5,081,722**	**$ 628,468**	**$ 618,568**	**$ 618,568**		
Charges For Service						
Library receipts	$ 12,386	$ 70,000	$ 70,000	$ 70,000	0%	-
Library video rental fees	4,051	25,000	25,000	25,000	0%	-
Special police revenue	62,130	50,000	50,000	50,000	0%	-
Sale of cemetery lots	340,000	130,000	130,000	130,000	0%	-
Headstone setting fee	7,500	4,500	4,500	4,500	0%	-
Cemetery burial fees	87,850	52,000	52,000	52,000	0%	-
Fire fees	7,118	201,130	195,600	195,600	0%	(5,530)
Ambulance fees	1,686,040	1,224,000	1,224,000	1,224,000	3%	-
Passports	27,210	100,000	100,000	100,000	0%	-
Total Charges for Service	**$ 2,234,286**	**$ 1,856,630**	**$ 1,851,100**	**$ 1,851,100**		
Fines and Forfeitures						
Court fines & forfeitures	$ 710,639	$ 732,500	$ 732,500	$ 732,500	2%	-
Enforcement fees	940	5,000	5,000	5,000	0%	-
Total Fines and Forfeitures	**$ 711,579**	**$ 737,500**	**$ 737,500**	**$ 737,500**		
Miscellaneous Revenues						
Interest earnings	$ 108,235	$ 100,000	$ 100,000	$ 100,000	0%	-
Traffic school	9,499	33,000	33,000	33,000	0%	-

GENERAL FUND REVENUES-CONTINUED

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Miscellaneous Revenues - continued						
Park rental	105,124	42,000	42,000	42,000	0%	-
Portable stage rental	1,190	5,500	5,500	5,500	0%	-
Cellular one tower/park fee	59,592	65,000	65,000	65,000	0%	-
Sale of fixed assets	106,923	10,000	10,000	10,000	0%	-
Sale of city property	-	-	-	-	0%	-
Sale of materials	215	500	500	500	0%	-
Sale of history books	-	500	500	500	0%	-
Frances Comer trust donations	-	2,750	2,750	2,750	0%	-
Literacy center revenue	-	3,250	3,250	3,250	0%	-
Miss Lehi revenue	11,260	21,000	21,000	21,000	0%	-
Lehi roundup revenue	17,201	64,500	64,500	64,500	0%	-
Misc revenue contractors	262,205	50,000	50,000	50,000	0%	-
Family Week	-	-	-	-	0%	-
Alpine School District Rec Fee	17,063	15,000	15,000	15,000	0%	-
Office building rental fee	37,136	40,000	40,000	40,000	0%	-
Miscellaneous revenue	196,424	80,000	80,000	80,000	0%	-
Total Miscellaneous Revenues	**$ 932,066**	**$ 533,000**	**$ 533,000**	**$ 533,000**		
Contributions, Transfers & Admin						
Allocation from water & sewer	$ 590,500	$ 590,500	$ 590,500	$ 590,500	1%	-
Allocation from electric	541,000	541,000	541,000	541,000	1%	-
Administrative charges RDA	1,355,678	1,600,000	1,600,000	1,600,000	3%	-
Fund balance reappropriation	-	778,907	698,397	133,853	0%	(645,054)
Total Contributions & Transfers	**$ 2,487,178**	**$ 3,510,407**	**$ 3,429,897**	**$ 2,865,353**		
Total General Fund Revenues	**$ 52,949,868**	**$ 44,272,822**	**$ 48,180,078**	**$ 48,554,978**	**100%**	**$ 4,282,156**

GENERAL FUND EXPENDITURES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Justice court	$ 574,623	$ 611,815	$ 659,316	$ 671,616	1%	$ 59,801
City recorder	154,731	277,572	198,105	213,105	0%	(64,467)
Administration	1,093,554	1,292,557	1,566,714	1,446,969	3%	154,412
Human resources	271,527	330,875	806,428	396,155	1%	65,280
Treasury	491,157	517,619	529,602	559,602	1%	41,983
Finance	590,550	653,090	710,130	740,619	2%	87,529
Mayor & City Council	321,892	365,180	386,274	401,274	1%	36,094
Legal services	587,211	736,605	756,800	769,834	2%	33,229
Emergency management	123,034	160,378	165,747	165,747	0%	5,369
Information Center	466,872	521,998	580,938	604,336	1%	82,338
Code enforcement	-	-	-	-	0%	-
Police	9,301,032	10,565,227	11,555,646	11,534,200	24%	968,973
Fire	7,748,196	8,398,419	8,816,869	8,955,609	18%	557,190
Planning & zoning	864,165	988,582	1,151,038	1,065,395	2%	76,813
Animal control	-	-	-	-	0%	-
Development Services (Building Dept)	1,291,885	1,392,628	1,793,549	1,780,516	4%	387,888
Economic development	204,393	233,676	247,138	255,138	1%	21,462
Streets & public improvements	1,740,371	2,108,153	2,244,803	2,051,685	4%	(56,468)
Public works admin	74,450	-	-	-	0%	-
Engineering	851,862	932,811	1,008,813	1,027,835	2%	95,024
Parks	2,866,119	3,413,369	3,962,005	3,895,005	8%	481,636
Community events	396,186	490,700	490,700	495,700	1%	5,000
Senior citizen	206,901	344,977	363,413	363,413	1%	18,436
Library	1,415,810	1,470,559	1,598,673	1,613,673	3%	143,114
Literacy center	311,908	397,301	421,708	436,708	1%	39,407
Cemetery	483,120	541,527	588,097	593,097	1%	51,570
Museum	285,231	299,750	299,750	299,750	1%	-
Non-departmental	15,568,743	7,216,222	7,277,823	8,217,998	17%	1,001,776
Total General Fund Expenditures	**$ 48,285,523**	**$ 44,261,590**	**$ 48,180,078**	**$ 48,554,978**	**100%**	**$ 4,293,388**
Surplus/(Deficit)	**$ 4,664,344**	**$ 11,232**	**$ 0**	**$ 0**		

HUMAN RESOURCES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	3	3	9.5	3		0
Salaries & Wages	$ 151,921	$ 190,547	$ 537,248	$ 219,840	55%	29,293
Employee Benefits	74,769	92,523	193,124	99,259	25%	6,736
Books, Subscriptions, Memberships	1,479	1,500	1,500	1,500	0%	-
Travel & Training	771	5,000	5,000	5,000	1%	-
Office Supplies	1,587	2,750	9,750	2,750	1%	-
IT Fund Charges	14,000	14,000	16,000	44,000	11%	30,000
Utilities	-	750	-	-	0%	(750)
Equipment Maintenance	-	800	800	800	0%	-
Risk Mgmt Fund Charges	1,000	1,000	1,000	1,000	0%	-
Professional & Technical	25,778	21,005	36,005	21,005	5%	-
Miscellaneous	220	1,000	6,000	1,000	0%	-
Total HR Expenditures	**$ 271,527**	**$ 330,875**	**$ 806,428**	**$ 396,155**	**100%**	**$ 65,280**

JUSTICE COURT

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTE's	4.3	5.5	5.5	5.5		0
Salaries & Wages	$ 315,279	$ 325,874	$ 362,942	$ 360,242	54%	$ 34,368
Overtime	220	750	750	750	0%	-
Employee Benefits	147,064	160,256	167,689	167,689	25%	7,433
Books, Subscriptions, Memberships	174	1,000	1,000	1,000	0%	-
Travel & Training	8,505	13,100	13,100	13,100	2%	-
Office Supplies	11,225	11,000	11,000	11,000	2%	-
Building & Grounds	25,000	25,000	25,000	25,000	4%	-
IT Fund Charges	20,000	20,000	20,000	35,000	5%	15,000
Utilities	17,075	15,000	18,000	18,000	3%	3,000
Equipment Maintenance	-	1,800	1,800	1,800	0%	-
Risk Mgmt Fund Charges	1,000	1,000	1,000	1,000	0%	-
Electricity - Lehi City Power	4,791	5,575	5,575	5,575	1%	-
Professional & Technical	21,370	23,460	23,460	23,460	3%	-
Witness & Jury Fees	-	4,000	4,000	4,000	1%	-
Miscellaneous	2,920	4,000	4,000	4,000	1%	-
Capital Outlay	-	-	-	-	0%	-
Total Justice Court Expenditures	**$ 574,623**	**$ 611,815**	**$ 659,316**	**$ 671,616**	**100%**	**$ 59,801**

CITY RECORDER

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	1	1	1	1		0
Salaries & Wages	$ 76,226	$ 78,682	$ 83,852	$ 83,852	39%	$ 5,170
Employee Benefits	43,887	44,971	46,352	46,352	22%	1,381
Books, Subscriptions, Memberships	7,541	5,000	5,000	5,000	2%	-
Public Notices	-	7,500	7,500	7,500	4%	-
Travel & Training	847	4,000	4,000	4,000	2%	-
Office Supplies	92	2,500	2,500	2,500	1%	-
IT Fund Charges	4,000	4,000	4,000	19,000	9%	15,000
Utilities	-	750	-	-	0%	(750)
Equipment Maintenance	19,510	20,800	20,800	20,800	10%	-
Risk Mgmt Fund Charges	1,000	1,000	1,000	1,000	0%	-
Professional & Technical	95	12,100	12,100	12,100	6%	-
Miscellaneous	1,533	11,000	11,000	11,000	5%	-
Election Expense	-	85,269	-	-	0%	(85,269)
Capital Outlay	-	-	-	-	0%	-
Total City Recorder Expenditures	**$ 154,731**	**$ 277,572**	**$ 198,105**	**$ 213,105**	**100%**	**$ (64,467)**

ADMINISTRATION

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	8	8	10	9		1
Salaries & Wages	$ 672,557	$ 714,096	$ 859,612	$ 803,890	56%	$ 89,794
Overtime	4,763	-	-	-	0%	-
Employee Benefits	274,520	320,999	399,779	364,216	25%	43,217
Books, Subcriptions, Memberships	8,037	6,500	6,500	6,500	0%	-
Public Notices	-	1,000	1,000	1,000	0%	-
Travel & Training	12,710	28,200	47,000	47,000	3%	18,800
Office Supplies	8,074	18,700	20,200	18,700	1%	-
Fleet Fund Charges	19,162	19,162	19,162	19,162	1%	-
IT Fund Charges	8,000	8,000	8,000	24,601	2%	16,601
Utilities	-	12,000	-	-	0%	(12,000)
Risk Mgmt Fund Charges	2,000	2,000	2,000	2,000	0%	-
Electricity - Lehi City Power	-	10,000	-	-	0%	(10,000)
Professional & Technical	19,082	40,000	40,000	40,000	3%	-
Public Defender	52,083	100,000	100,000	100,000	7%	-
Miscellaneous	12,566	11,900	19,900	19,900	1%	8,000
Capital	-	-	43,561	-	0%	-
Total Administration Expenditures	**$ 1,093,554**	**$ 1,292,557**	**$ 1,566,714**	**$ 1,446,969**	**100%**	**$ 154,412**

TREASURY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	5	5	5	5		0
Salaries & Wages	$ 281,710	$ 287,192	$ 296,226	$ 296,226	53%	$ 9,034
Employee Benefits	172,674	183,727	186,677	186,677	33%	2,950
Books, Subscriptions, Memberships	-	1,000	1,000	1,000	0%	-
Travel & Training	-	4,000	4,000	4,000	1%	-
Office Supplies	3,232	3,200	3,200	3,200	1%	-
IT Fund Charges	16,000	16,000	16,000	46,000	8%	30,000
Utilities	-	1,000	-	-	0%	(1,000)
Equipment Maintenance	-	500	500	500	0%	-
Risk Mgmt Fund Charges	10,000	10,000	10,000	10,000	2%	-
Professional & Technical	7,011	10,000	11,000	11,000	2%	1,000
Miscellaneous	531	1,000	1,000	1,000	0%	-
Total Treasury Expenditures	**$ 491,157**	**$ 517,619**	**$ 529,602**	**$ 559,602**	**100%**	**$ 41,983**

FINANCE

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTE's	4	4	4	4		0
Salaries & Wages	$ 349,510	$ 356,596	$ 402,347	$ 402,347	54%	$ 45,751
Employee Benefits	165,793	184,698	196,488	196,488	27%	11,790
Books, Subscriptions, Memberships	1,390	2,246	2,246	2,246	0%	-
Travel & Training	745	6,500	6,500	6,500	1%	-
Office Supplies	5,546	10,000	10,000	10,000	1%	-
IT Fund Charges	10,000	10,000	10,000	40,489	5%	30,489
Utilities	-	500	-	-	0%	(500)
Equipment Maintenance	-	1,500	1,500	1,500	0%	-
Risk Mgmt Fund Charges	1,000	1,000	1,000	1,000	0%	-
Professional & Technical	6,838	30,000	30,000	30,000	4%	-
Yearly audit	48,300	46,000	46,000	46,000	6%	-
Budget award	575	550	550	550	0%	-
Miscellaneous	852	3,500	3,500	3,500	0%	-
Total Finance Expenditures	**$ 590,550**	**$ 653,090**	**$ 710,130**	**$ 740,619**	**100%**	**$ 87,529**

MAYOR & CITY COUNCIL

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	6	6	6	6		0
Salaries & Wages	$ 126,524	$ 127,689	$ 161,023	$ 161,023	40%	$ 33,334
Employee Benefits	120,241	130,491	133,251	133,251	33%	2,760
Books, Subscriptions, Memberships	43,057	35,000	35,000	35,000	9%	-
Travel & Training	3,117	15,000	-	-	0%	(15,000)
Office Supplies	102	3,000	3,000	3,000	1%	-
Reimb. Expenses	-	5,000	5,000	5,000	1%	-
Risk Mgmt Fund Charges	2,000	2,000	2,000	2,000	0%	-
IT Fund Charges	5,000	5,000	5,000	20,000	5%	15,000
Professional & Technical	16,749	25,000	25,000	25,000	6%	-
Miscellaneous	5,102	17,000	17,000	17,000	4%	-
Total City Council Expenditures	**$ 321,892**	**$ 365,180**	**$ 386,274**	**$ 401,274**	**100%**	**$ 36,094**

LEGAL SERVICES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	5	5	5.5	5.5		0.5
Salaries & Wages	$ 405,927	$ 443,182	$ 464,426	$ 464,426	60%	$ 21,244
Employee Benefits	139,977	186,423	183,374	183,374	24%	(3,049)
Books, Subscriptions, Memberships	9,693	8,500	8,500	8,500	1%	-
Travel & Training	512	5,500	5,500	5,500	1%	-
Office Supplies	1,453	10,000	12,000	10,000	1%	-
IT Fund Charges	8,000	8,000	8,000	23,534	3%	15,534
Utilities	-	500	500	-	0%	(500)
Risk Mgmt Fund Charges	2,000	2,000	2,000	2,000	0%	-
Professional & Technical	13,589	40,000	40,000	40,000	5%	-
Prosecutor Outside Counsel	5,942	30,000	30,000	30,000	4%	-
Miscellaneous	118	2,500	2,500	2,500	0%	-
Total Legal Services Expenditures	**$ 587,211**	**$ 736,605**	**$ 756,800**	**$ 769,834**	**100%**	**$ 33,229**

EMERGENCY MANAGEMENT

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	0.5	1	1	1		0
Salaries & Wages	$ 62,021	$ 64,497	$ 68,734	$ 68,734	41%	$ 4,237
Employee Benefits	34,378	41,181	42,313	42,313	26%	1,132
Books, Subscriptions & Memberships	-	-	-	-	0%	-
Travel & Training	300	3,500	3,500	3,500	2%	-
Office Supplies	-	500	500	500	0%	-
Professional & Technical	-	10,000	10,000	10,000	6%	-
Miscellaneous	20,862	21,700	21,700	21,700	13%	-
Cert Program	5,473	12,500	12,500	12,500	8%	-
Rehab Program	-	6,500	6,500	6,500	4%	-
Capital Outlay	-	-	-	-	0%	-
Total Emergency Mgmt Expenditures	**$ 123,034**	**$ 160,378**	**$ 165,747**	**$ 165,747**	**100%**	**$ 5,369**

INFORMATION CENTER

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	1.5	7	7.5	7.5		0.5
Salaries & Wages	$ 292,445	$ 328,432	$ 349,886	$ 349,886	58%	$ 21,454
Overtime	-	-	-	-	0%	-
Employee Benefits	157,071	167,966	204,786	204,786	34%	36,820
Books, Subscriptions, Memberships	50	1,000	1,000	1,000	0%	-
Travel & Training	150	3,000	3,000	3,000	0%	-
Office Supplies	1,801	5,600	5,600	5,600	1%	-
IT Fund Charges	3,000	3,000	3,667	27,065	4%	24,065
Professional & Technical	4,555	4,000	4,000	4,000	1%	-
Miscellaneous	7,800	9,000	9,000	9,000	1%	-
Capital Outlay	-	-	-	-	0%	-
Total Information Center Expenditures	**$ 466,872**	**$ 521,998**	**$ 580,938**	**$ 604,336**	**100%**	**$ 82,338**

CODE ENFORCEMENT

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	0	0	0	0		0
Salaries & Wages	$ -	$ -	$ -	$ -		$ -
Overtime	-	-	-	-		-
Employee Benefits	-	-	-	-		-
Office Supplies	-	-	-	-		-
Fleet Fund Charges	-	-	-	-		-
IT Fund Charges	-	-	-	-		-
Risk Mgmt Fund Charges	-	-	-	-		-
Professional & Technical	-	-	-	-		-
Miscellaneous	-	-	-	-		-
Total Code Enforcement Expenditures	**$ -**	**$ -**	**$ -**	**$ -**	**0%**	**$ -**

** Combined with Police Department

POLICE

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	69	70	75	72		2
Salaries & Wages	$ 4,731,899	$ 5,499,581	$ 6,017,154	$ 5,954,211	52%	$ 454,630
Overtime	521,662	284,000	284,000	284,000	2%	-
Employee Benefits	2,798,185	3,406,408	3,699,988	3,657,379	32%	250,971
Uniforms	80,077	59,200	57,700	57,700	1%	(1,500)
Tactical Equipment	22,406	23,100	43,425	36,650	0%	13,550
Books, Subscriptions, Memberships	3,657	4,338	4,338	4,338	0%	-
Travel & Training	43,910	57,550	57,550	57,550	0%	-
Office Supplies	30,902	31,000	31,000	31,000	0%	-
Fleet Fund Charges	455,102	490,083	548,427	628,979	5%	138,896
Buildings & Grounds O&M	65,000	75,000	75,000	75,000	1%	-
Utilities	17,140	77,756	37,756	17,500	0%	(60,256)
Equipment Maintenance	106,741	101,199	207,478	207,478	2%	106,279
Miscellaneous Supplies	16,055	23,890	23,890	23,890	0%	-
Electricity - Lehi City Power	60,014	20,000	60,000	60,000	1%	40,000
Professional & Technical	127,754	161,960	144,378	144,378	1%	(17,582)
IT Fund Charges	130,200	132,868	134,869	169,254	1%	36,386
Risk Mgmt Fund Charges	24,000	26,000	26,000	26,000	0%	-
K9 Supplies	12,277	12,000	12,000	12,000	0%	-
Firearms & Supplies	31,771	44,000	55,400	51,600	0%	7,600
Miscellaneous	21,706	25,294	25,294	25,294	0%	-
Capital Outlay	-	-	-	-	0%	-
Youth Court Expenses	-	2,000	2,000	2,000	0%	-
NOVA Expenses	575	6,000	6,000	6,000	0%	-
RAD Kids Expenses	-	2,000	2,000	2,000	0%	-
Total Police Expenditures	**$ 9,301,032**	**$ 10,565,227**	**$ 11,555,646**	**$ 11,534,200**	**100%**	**$ 968,975**

FIRE

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	67	68	68	68		0
Salaries & Wages	$ 3,995,748	$ 4,210,893	$ 4,490,704	$ 4,490,704	50%	$ 279,811
Overtime	268,409	177,729	177,729	177,729	2%	-
Employee Benefits	2,104,265	2,279,193	2,377,832	2,377,832	27%	98,639
Uniforms	94,760	87,907	87,907	87,907	1%	-
Books, Subscriptions, Memberships	18,565	20,150	20,150	20,150	0%	-
Travel & Training	21,270	62,110	62,110	62,110	1%	-
Office Supplies	6,507	22,400	22,400	22,400	0%	-
Fleet Fund Charges	733,164	895,394	895,394	995,394	11%	100,000
Buildings & Grounds O&M	25,555	37,650	37,650	37,650	0%	-
Utilities	23,531	32,000	32,000	24,000	0%	(8,000)
Equipment Maintenance	71,477	74,500	74,500	74,500	1%	-
Electricity - Lehi City Power	45,760	50,000	50,000	50,000	1%	-
Professional & Technical	34,277	75,200	75,200	75,200	1%	-
IT Fund Charges	20,000	20,833	20,833	67,573	1%	46,740
Risk Mgmt Fund Charges	10,000	10,000	10,000	10,000	0%	-
Education	22,453	26,650	26,650	26,650	0%	-
First Aid Supplies	95,611	122,950	122,950	122,950	1%	-
Miscellaneous	156,845	192,860	232,860	232,860	3%	40,000
Capital Outlay	-	-	-	-	0%	-
Total Fire Expenditures	**$ 7,748,196**	**$ 8,398,419**	**$ 8,816,869**	**$ 8,955,609**	**100%**	**$ 557,190**

PLANNING & ZONING

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	7.25	7.25	8.25	7.25		0
Salaries & Wages	$ 561,307	$ 600,686	$ 703,640	$ 644,984	61%	$ 44,298
Employee Benefits	246,557	268,981	325,383	286,496	27%	17,515
Books, Subscriptions, Memberships	1,642	3,000	3,000	3,000	0%	-
Public Notices	2,889	9,000	9,000	9,000	1%	-
Travel & Training	1,932	23,300	23,300	23,300	2%	-
Office Supplies	2,628	12,500	15,600	12,500	1%	-
Fleet Fund Charges	4,000	4,000	4,000	4,000	0%	-
Utilities	-	3,000	3,000	2,466	0%	(534)
Equipment Maintenance	-	4,295	4,295	4,295	0%	-
Professional & Technical	17,603	32,320	32,320	32,320	3%	-
IT Fund Charges	14,000	14,000	14,000	29,534	3%	15,534
Risk Mgmt Fund Charges	4,000	4,000	4,000	4,000	0%	-
Recording Fees	5,252	6,000	6,000	6,000	1%	-
Standards Update	-	1,000	1,000	1,000	0%	-
Miscellaneous	2,356	2,500	2,500	2,500	0%	-
Capital Outlay	-	-	-	-	0%	-
Total Planning Expenditures	**$ 864,165**	**$ 988,582**	**$ 1,151,038**	**$ 1,065,395**	**100%**	**$ 76,813**

ANIMAL CONTROL

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	0	0	0	0		0
Salaries & Wages	$ -	$ -	$ -	$ -		$ -
Overtime	-	-	-	-		-
Employee Benefits	-	-	-	-		-
Uniforms	-	-	-	-		-
Travel & Training	-	-	-	-		-
Fleet Fund Charges	-	-	-	-		-
Risk Mgmt Fund Charges	-	-	-	-		-
Equipment Maintenance	-	-	-	-		-
Professional & Technical	-	-	-	-		-
Capital Outlay	-	-	-	-		-
Total Animal Control Expenditures	**$ -**	**$ -**	**$ -**	**$ -**	**0%**	**$ -**

** Combined with Police Department

DEVELOPMENT SERVICES (BUILDING INSPECTION)

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	13	13	16	16		3
Salaries & Wages	$ 819,835	$ 855,313	$ 1,100,585	$ 1,100,585	62%	$ 245,272
Overtime	4,302	10,000	10,000	10,000	1%	-
Employee Benefits	400,201	432,704	572,938	572,938	32%	140,234
Uniforms	2,957	3,100	3,100	3,100	0%	-
Books, Subscriptions, Memberships	2,392	9,000	9,000	9,000	1%	-
Travel & Training	4,240	17,000	17,000	17,000	1%	-
Office Supplies	7,756	9,000	12,000	9,000	1%	-
Fleet Fund Charges	24,601	24,601	24,601	24,601	1%	-
Utilities	-	2,500	2,500	-	0%	(2,500)
Equipment Maintenance	187	2,200	2,200	2,200	0%	-
Risk Mgmt Fund Charges	5,000	5,000	5,000	5,000	0%	-
Professional & Technical	65	-	-	-	0%	-
State 1% Building Fees	-	-	-	-	0%	-
IT Fund Charges	18,000	18,000	18,000	22,882	1%	4,882
Miscellaneous	2,350	4,210	4,210	4,210	0%	-
Capital Outlay	-	-	12,415	-	0%	-
Total Building Inspection Expenditures	**$ 1,291,885**	**$ 1,392,628**	**$ 1,793,549**	**$ 1,780,516**	**100%**	**$ 387,888**

ECONOMIC DEVELOPMENT

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	1	1	1	1		0
Salaries & Wages	$ 121,569	$ 124,253	$ 134,877	$ 134,877	53%	$ 10,624
Employee Benefits	55,241	57,148	59,986	59,986	24%	2,838
Books, Subscriptions, Memberships	1,565	19,200	19,200	19,200	8%	-
Public Notices	-	1,200	1,200	1,200	0%	-
Travel & Training	421	7,875	7,875	7,875	3%	-
Office Supplies	-	1,500	1,500	1,500	1%	-
IT Fund Charges	2,000	2,000	2,000	10,000	4%	8,000
Permits & Licenses	-	1,500	1,500	1,500	1%	-
Risk Management Charges	1,000	1,000	1,000	1,000	0%	-
Professional & Technical	13,598	8,000	8,000	8,000	3%	-
Miscellaneous	9,000	10,000	10,000	10,000	4%	-
Total Economic Develop Expenditures	**$ 204,393**	**$ 233,676**	**$ 247,138**	**$ 255,138**	**100%**	**$ 21,462**

STREETS

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	17.75	18.75	17.75	17.75		-1
Salaries & Wages	$ 787,629	$ 922,239	$ 889,978	$ 889,978	43%	$ (32,261)
Overtime	29,330	50,000	50,000	50,000	2%	-
Employee Benefits	471,344	577,584	532,177	532,177	26%	(45,407)
Uniforms	6,155	7,900	7,900	7,900	0%	-
Books, Subscriptions, Memberships	-	200	200	200	0%	-
Travel & Training	8,166	25,000	25,000	25,000	1%	-
Office Supplies	5,054	5,500	5,500	5,500	0%	-
Fleet Fund Charges	275,328	378,914	439,251	378,914	18%	-
Buildings & Grounds	25,070	25,000	25,000	25,000	1%	-
Utilities	8,937	5,000	9,000	7,612	0%	2,612
Equipment Maintenance	26,314	25,000	25,000	25,000	1%	-
Risk Mgmt Fund Charges	10,000	11,500	11,500	11,500	1%	-
Electricity - Lehi City Power	28,483	4,000	30,000	30,000	1%	26,000
Professional & Technical	28,849	25,094	25,094	25,094	1%	-
IT Fund Charges	8,000	14,000	14,000	15,388	1%	1,388
Department Supplies	21,712	19,922	19,922	19,922	1%	-
Landfill Closure/Postclosure	-	2,500	2,500	2,500	0%	-
Capital	-	8,800	132,781	-	0%	(8,800)
Total Streets Expenditures	**$ 1,740,371**	**$ 2,108,153**	**$ 2,244,803**	**$ 2,051,685**	**100%**	**$ (56,468)**

PUBLIC WORKS ADMINISTRATION

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	1	1	0	0		0
Salaries & Wages	$ 34,365	$ -	$ -	$ -	0%	$ -
Employee Benefits	25,898	-	-	-	0%	-
Books, Subscrip, Memberships	-	-	-	-	0%	-
Travel & Training	-	-	-	-	0%	-
Office Supplies	2,686	-	-	-	0%	-
Fleet Fund Charges	4,000	-	-	-	0%	-
IT Fund Charges	6,000	-	-	-	0%	-
Utilities	-	-	-	-	0%	-
Equipment Maintenance	-	-	-	-	0%	-
Risk Mgmt Fund Charges	1,500	-	-	-	0%	-
Professional & Technical	-	-	-	-	0%	-
Miscellaneous	-	-	-	-	0%	-
Capital Outlay	-	-	-	-	0%	-
					0	
Total Public Works Admin Expenditures	**$ 74,450**	**$ -**	**$ -**	**$ -**	**0%**	**$ -**

**Combined with Streets Department

ENGINEERING

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	5	6	6	6		0
Salaries & Wages	$ 523,742	$ 572,107	$ 630,504	$ 630,504	61%	$ 58,397
Employee Benefits	242,992	283,804	299,409	299,409	29%	15,605
Uniforms	240	600	600	600	0%	-
Books, Subscriptions, Memberships	2,317	800	1,300	1,300	0%	500
Travel & Training	2,604	9,500	9,500	9,500	1%	-
Office Supplies	5,892	5,500	4,500	4,500	0%	(1,000)
Fleet Fund Charges	4,000	4,000	4,000	4,000	0%	-
IT Fund Charges	6,000	6,000	6,000	25,022	2%	19,022
Equipment Maintenance	25,352	25,000	27,500	27,500	3%	2,500
Risk Mgmt Fund Charges	2,000	2,000	2,000	2,000	0%	-
Professional & Technical	36,238	23,000	23,000	23,000	2%	-
Miscellaneous	485	500	500	500	0%	-
Capital Outlay	-	-	-	-	0%	-
Total Engineering Expenditures	**$ 851,862**	**$ 932,811**	**$ 1,008,813**	**$ 1,027,835**	**100%**	**$ 95,024**

PARKS

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	33	35	39	37		2
Salaries & Wages	$ 1,182,141	$ 1,386,492	$ 1,629,798	$ 1,788,398	46%	$ 401,906
Overtime	52,680	50,000	50,000	50,000	1%	-
Employee Benefits	517,480	686,940	678,189	678,189	17%	(8,751)
Uniforms	12,861	9,030	9,930	9,330	0%	300
Travel & Training	11,640	12,000	17,000	17,000	0%	5,000
Office Supplies	2,355	2,000	2,000	2,000	0%	-
Fleet Fund Charges	81,357	96,357	105,538	105,538	3%	9,181
Buildings & Grounds O&M	100,823	84,500	84,500	84,500	2%	-
Utilities	32,407	7,500	35,000	29,979	1%	22,479
Equipment Maintenance	56,554	40,000	40,000	40,000	1%	-
Risk Mgmt Fund Charges	5,000	5,000	5,000	5,000	0%	-
Electricity - Lehi City Power	99,663	48,000	100,000	100,000	3%	52,000
Professional & Technical	304,377	419,500	419,500	419,500	11%	-
IT Fund Charges	6,000	6,000	6,000	31,021	1%	25,021
Tree Trimming	41,584	60,000	60,000	60,000	2%	-
Purchase of Trees	11,285	108,000	108,000	108,000	3%	-
Miscellaneous	7,640	22,850	22,850	22,850	1%	-
Park Maintenance	189,065	206,700	206,700	206,700	5%	-
Park Pavilion & Playground Upgrades	105,278	87,000	87,000	87,000	2%	-
Capital Outlay	45,929	75,500	295,000	50,000	1%	(25,500)
Total Parks Expenditures	**$ 2,866,119**	**$ 3,413,369**	**$ 3,962,005**	**$ 3,895,005**	**100%**	**$ 481,636**

COMMUNITY EVENTS

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Cultural Arts Council Expense	$ 78,000	$ 78,000	$ 78,000	$ 78,000	16%	$ -
Boys State Contribution	-	800	800	800	0%	-
Miss Lehi Pageant	33,911	22,000	22,000	22,000	4%	-
Lehi Float	-	16,000	16,000	16,000	3%	-
Lehi Parade & Events Committee	119,240	102,500	102,500	102,500	21%	-
Youth City Council	2,642	4,000	4,000	4,000	1%	-
Family Week	-	5,000	5,000	5,000	1%	-
Foam Day	1,569	13,000	13,000	13,000	3%	-
Lehi Silver Band	2,500	2,500	2,500	2,500	1%	-
Community Beautification	7,743	11,000	11,000	11,000	2%	-
Brochures Published	-	3,000	3,000	3,000	1%	-
Santa Parade	663	1,500	1,500	1,500	0%	-
Special Projects	22,972	90,000	90,000	90,000	18%	-
Summer Splash Party	11,497	20,000	20,000	20,000	4%	-
Teen Event	-	2,500	2,500	2,500	1%	-
National Night Out Event	3,990	5,000	5,000	5,000	1%	-
Outdoor Movies	15,480	12,200	12,200	12,200	2%	-
Archives Donation	28,000	28,000	28,000	33,000	7%	5,000
Fireworks Show	25,000	25,000	25,000	25,000	5%	-
Parks & Trails Committee	-	1,700	1,700	1,700	0%	-
Christmas in Lehi	925	1,000	1,000	1,000	0%	-
Easter Egg Hunt	6,910	7,000	7,000	7,000	1%	-
Miscellaneous special events	14,796	10,000	10,000	10,000	2%	-
Just for Kids	20,000	20,000	20,000	20,000	4%	-
Volunteer Celebration	(280)	4,000	4,000	4,000	1%	-
Veteran's Day Celebration	629	5,000	5,000	5,000	1%	-
Total Comm Events Expenditures	**$ 396,186**	**$ 490,700**	**$ 490,700**	**$ 495,700**	**100%**	**$ 5,000**

SENIOR CITIZEN

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	3.5	3.5	3.5	3.5		0
Salaries & Wages	$ 128,080	$ 167,832	$ 175,563	$ 175,563	48%	$ 7,731
Overtime	-	-	-	-	0%	-
Employee Benefits	47,382	50,995	55,782	55,782	15%	4,787
Travel & Training	296	2,000	2,000	2,000	1%	-
Office Supplies	2,660	4,000	4,000	4,000	1%	-
Senior Citizen - Bldgs & Grounds	15,105	15,000	15,000	15,000	4%	-
Utilities	-	2,000	-	-	0%	(2,000)
IT Fund Charges	-	-	-	-	0%	-
Electricity - Lehi City Power	-	6,500	-	-	0%	(6,500)
Professional & Technical	-	1,650	1,650	1,650	0%	-
Program Expenditures	12,045	63,000	69,612	69,612	19%	6,612
Meal Management	1,334	23,000	23,000	23,000	6%	-
Miscellaneous	-	9,000	9,000	9,000	2%	-
Capital Outlay	-	-	7,805	7,805	2%	7,805
Total Senior Citizen Expenditures	**$ 206,901**	**$ 344,977**	**$ 363,413**	**$ 363,413**	**100%**	**$ 18,436**

LIBRARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	22	22	22	22		0
Salaries & Wages	$ 725,560	$ 722,881	$ 810,487	$ 810,487	50%	$ 87,606
Employee Benefits	278,770	298,271	322,231	322,231	20%	23,960
Books	204,500	210,000	210,000	210,000	13%	-
Subscriptions	8,659	10,000	10,000	10,000	1%	-
Travel & Training	2,014	7,000	7,000	7,000	0%	-
Office Supplies	26,707	22,000	22,000	22,000	1%	-
Equipment Maintenance	50,522	51,827	59,827	58,267	4%	6,440
Buildings & Grounds O&M	25,000	25,000	25,000	25,000	2%	-
Utilities	5,698	10,000	10,000	10,000	1%	-
Story Hour Expense	6,938	8,250	8,250	8,250	1%	-
Risk Mgmt Fund Charges	5,000	5,000	5,000	5,000	0%	-
Electricity - Lehi City Power	15,799	18,000	18,000	18,000	1%	-
Professional & Technical	1,781	20,000	17,500	17,500	1%	(2,500)
Collections	1,050	2,000	2,000	2,000	0%	-
IT Fund Charges	50,000	50,000	50,000	66,560	4%	16,560
Miscellaneous	7,813	10,330	10,330	10,330	1%	-
Capital Outlay	-	-	11,048	11,048	1%	11,048
Total Library Expenditures	**$ 1,415,810**	**$ 1,470,559**	**$ 1,598,673**	**$ 1,613,673**	**100%**	**$ 143,114**

LITERACY CENTER

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	6.5	6.5	6.5	6.5		0
Salaries & Wages	$ 213,733	$ 257,397	$ 275,548	$ 275,548	63%	$ 18,151
Employee Benefits	49,113	90,154	93,410	93,410	21%	3,256
Books, Subscriptions, Memberships	570	500	500	500	0%	-
Travel & Training	-	1,000	1,000	1,000	0%	-
Office Supplies	5,825	5,000	5,000	5,000	1%	-
Buildings & Grounds O&M	15,000	15,000	15,000	15,000	3%	-
Utilities	5,287	4,000	5,500	5,500	1%	1,500
Equipment Maintenance	-	750	750	750	0%	-
Risk Mgmt Fund Charges	5,155	5,000	5,000	5,000	1%	-
Electricity - Lehi City Power	6,504	5,000	6,500	6,500	1%	1,500
Professional & Technical	-	2,500	2,500	2,500	1%	-
IT Fund Charges	5,000	5,000	5,000	20,000	5%	15,000
Miscellaneous	5,721	6,000	6,000	6,000	1%	-
Capital Outlay	-	-	-	-	0%	-
Total Literacy Center Expenditures	**$ 311,908**	**$ 397,301**	**$ 421,708**	**$ 436,708**	**100%**	**$ 39,407**

CEMETERY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	7	7	7	7		0
Salaries & Wages	$ 251,505	$ 281,895	$ 300,051	$ 300,051	51%	$ 18,156
Overtime	583	3,500	3,500	3,500	1%	-
Employee Benefits	109,376	119,775	117,689	117,689	20%	(2,086)
Uniforms	632	1,800	1,800	1,800	0%	-
Newspaper Expense	-	357	357	357	0%	-
Office Supplies	1,801	2,000	2,000	2,000	0%	-
Fleet Fund Charges	15,000	15,000	15,000	15,000	3%	-
Cemetery Maintenance	22,681	24,000	29,000	29,000	5%	5,000
Utilities	4,759	6,200	6,200	5,879	1%	(321)
Equipment Maintenance	8,987	16,000	16,000	16,000	3%	-
Risk Mgmt Fund Charges	2,000	2,000	2,000	2,000	0%	-
Electricity - Lehi City Power	3,162	3,000	3,000	3,000	1%	-
Professional & Technical	7,225	5,000	5,000	5,000	1%	-
IT Fund Charges	4,000	4,000	4,000	9,321	2%	5,321
Safety	-	-	-	-	0%	-
Purchase Trees	13,531	8,500	8,500	8,500	1%	-
Miscellaneous	5,458	9,000	9,000	9,000	2%	-
Capital Outlay	32,421	39,500	65,000	65,000	11%	25,500
Total Cemetery Expenditures	**$ 483,120**	**$ 541,527**	**$ 588,097**	**$ 593,097**	**100%**	**$ 51,570**

MUSEUM

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Salaries & Wages	$ -	$ -	$ -	$ -	0%	$ -
Employee Benefits	-	-	-	-	0%	-
Publicity	-	-	-	-	0%	-
Office Supplies	-	-	-	-	0%	-
Lehi Archives Office Supplies	-	-	-	-	0%	-
Vehicle Fuel/Maint/Mileage	-	-	-	-	0%	-
Buildings & Grounds O&M	2,952	2,950	2,950	2,950	1%	-
Utilities	2,730	6,800	6,800	6,800	2%	-
Electricity - Lehi City Power	10,299	10,000	10,000	10,000	3%	-
Professional & Technical	260,000	260,000	260,000	260,000	87%	-
IT Fund Charges	-	-	-	-	0%	-
Risk Mgmt Fund Charges	-	-	-	-	0%	-
Miscellaneous	9,250	20,000	20,000	20,000	7%	-
Museum Contribution	-	-	-	-	0%	-
Total Museum Expenditures	**$ 285,231**	**$ 299,750**	**$ 299,750**	**$ 299,750**	**100%**	**-**

NON-DEPARTMENTAL

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Utilities	$ 250,164	$ 245,000	$ 245,000	$ 245,000	3%	$ -
Credit Card & Bank Charges	43,622	20,000	20,000	20,000	0%	-
Document Imaging	-	30,000	30,000	30,000	0%	-
Contribution to Risk Fund	370,013	518,013	518,013	518,013	6%	-
Contribution to Fleet Fund	615,435	-	-	-	0%	-
Employee Appreciation	87,226	75,000	100,000	100,000	1%	25,000
Contrib to Legacy Center/Outdoor Pool	1,870,842	1,872,396	1,937,892	1,931,717	24%	59,321
Museum Project Thanksgiving Point	103,000	100,000	100,000	100,000	1%	-
Contribution to Chamber	12,000	10,000	10,000	10,000	0%	-
Fox Hollow Golf Course	253,269	275,000	275,000	275,000	3%	-
Contingency	97,845	100,000	100,000	100,000	1%	-
MAG Contribution	36,705	25,000	25,000	25,000	0%	-
Branding	11,936	20,000	20,000	20,000	0%	-
Mayor/Council Special Projects	19,289	50,000	50,000	50,000	1%	-
Contribution to IT Fund	305,500	305,500	305,500	229,500	3%	(76,000)
Contribution to Capital Projects Fund	8,300,000	-	-	1,250,500	15%	1,250,500
Intergovernmental Relations	60,000	50,000	50,000	50,000	1%	-
Employee Wellness	98,280	177,000	152,000	152,000	2%	(25,000)
UVSSD dispatch costs	379,389	400,908	400,908	400,908	5%	-
Market Adjustment	(29,940)	180,000	180,000	180,000	2%	-
Youth Council	-	5,000	5,000	5,000	0%	-
Information fair	-	10,000	10,000	10,000	0%	-
VIPS	-	5,000	5,000	5,000	0%	-
Contribution to Bldgs/Grounds Fund	869,672	869,672	869,672	892,022	11%	22,350
911 Fees Passthrough to UVDSSD	-	-	-	-	0%	-
Transfer to Debt Service	1,814,495	1,872,733	1,868,838	1,618,338	20%	(254,395)
Total Non-Departmental Expenditures	**$ 15,568,743**	**$ 7,216,222**	**$ 7,277,823**	**$ 8,217,998**	**100%**	**$ 1,233,821**

CLASS "C" ROADS

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Class 'C" Road Allotment	$ 4,458,718	$ 3,700,000	$ 2,900,000	$ 2,900,000	66%	$ (800,000)
Utah County Transportation Tax	-	-	1,500,000	1,500,000	34%	$ 1,500,000
Interest Earnings	11,746	-	-	-	0%	-
Re-appropriate balance	-	190,000	27,017	27,017	1%	(162,983)
Total Revenues	$ 4,470,464	$ 3,890,000	$ 4,427,017	$ 4,427,017	**100%**	**$ 700,000**
Expenditures						
Road Maintenance	$ 1,389,098	$ 1,493,000	$ 1,493,000	$ 1,493,000	34%	-
Snow Removal & Salt	72,990	132,000	132,000	132,000	3%	-
Striping	175,263	200,000	200,000	200,000	5%	-
Equipment rental	34,340	60,000	60,000	60,000	1%	-
Street signs	83,852	85,000	85,000	85,000	2%	-
Traffic Control Updates	14,549	20,000	20,000	20,000	0%	-
Salt Sander & Dump Body	-	-	-	-	0%	-
Asphalt Roller	-	-	-	-	0%	-
Crack Seal Machine	-	-	-	-	0%	-
Road Reconstruction Projects	1,931,593	1,700,000	2,190,000	2,190,000	49%	490,000
Signal Lights & Signal Development	116,400	283,400	200,000	200,000	5%	(83,400)
Marathon Mastic Melter	61,150	-	-	-	0%	-
Fleet Fund Charges	-	-	47,017	47,017	1%	47,017
Reserves	-	-	-	-	0%	-
Total Expenditures	$ 3,879,233	$ 3,973,400	$ 4,427,017	$ 4,427,017	**100%**	**$ 453,617**
Surplus(Deficit)	**$ 591,231**	**$ (83,400)**	**$ -**	**$ -**		

LIQUOR FUND

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Income	$ -	$ -	$ -	$ -	0%	$ -
Liquor fund allottment	66,158	60,000	60,000	60,000	100%	-
Re-appropreiate fund balance	-	-	-	-	0%	-
Total Revenues	$ 66,158	$ 60,000	$ 60,000	$ 60,000	100%	$ -
Expenditures						
Wages > DUI enforcement	$ 43,003	$ 18,000	$ 18,000	$ 18,000	30%	$ -
Benefits	23,155	6,500	6,500	6,500	11%	-
Miscellaneous	-	35,500	35,500	35,500	59%	-
Fund Balance	-	-	-	-	0%	-
Total Expenditures	$ 66,158	$ 60,000	$ 60,000	$ 60,000	100%	$ -
Surplus(Deficit)	**$ 0**	**$ -**	**$ -**	**$ -**		

PARC TAX

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
PARC Tax Revenue	$ -	$ -	$ 1,500,000	$ 1,500,000	100%	$ 1,500,000
Fund Balance Appropriation	-	-	-	-	0%	$ -
Total Revenues	$ -	$ -	$ 1,500,000	$ 1,500,000	100%	$ 1,500,000
Expenses						
PARC Tax Arts Programs	$ -	$ -	$ 450,000	$ 450,000	30%	$ 450,000
Transfer to Capital Projects Fund	-	-	1,050,000	1,050,000	70%	1,050,000
Total Expenses	$ -	$ -	$ 1,500,000	$ 1,500,000	100%	$ 1,500,000
Surplus(Deficit)	**$ -**	**$ -**	**$ -**	**$ -**		

LEGACY CENTER SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Earnings	$ 3,712	$ 1,000	$ 1,000	$ 1,000	0%	$ -
Legacy Center Pass Sales	1,136,169	1,550,000	1,550,000	1,550,000	26%	-
Charges For Service	1,086,438	1,232,900	1,262,400	1,262,400	21%	29,500
Merchandise Sales	22,677	30,000	30,000	30,000	1%	-
Offsite Concession Sales	60,929	60,000	60,000	60,000	1%	-
Center Court Receipts	72,204	200,000	200,000	200,000	3%	-
Swim Program Revenue	314,427	325,000	325,000	325,000	6%	-
Contribution From General Fund	1,870,842	1,872,396	1,937,892	1,931,717	33%	59,321
Contribution From Fund Balance	-	25,000	540,000	540,000	9%	515,000
Total Revenues	$ 4,567,397	$ 5,296,296	$ 5,906,292	$ 5,900,117	100%	$ 603,821
Operating expenses	$ 4,509,391	$ 5,296,296	$ 5,906,292	$ 5,900,117		
Surplus(Deficit)	**$ 58,006**	**$ -**	**$ 0**	**$ 0**		

LEGACY CENTER

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	76.77	76.77	76.77	76.77		0
Salaries & Wages	$ 2,479,971	$ 2,715,611	$ 2,819,420	$ 2,819,420	48%	$ 103,809
Overtime	-	1,000	1,000	1,000	0%	-
Employee Benefits	508,301	596,503	604,697	604,697	10%	8,194
Uniforms	4,049	3,700	3,700	3,700	0%	-
Fleet Fund Charges	2,000	2,000	2,000	2,000	0%	-
IT Fund Charges	53,000	56,600	62,775	67,608	1%	11,008
Risk Mgmt Fund Charges	65,000	65,000	65,000	65,000	1%	-
Books, Subscriptions, Memberships	3,965	2,500	4,000	4,000	0%	1,500
Recreation Public Notices	583	5,000	5,000	5,000	0%	-
Travel & Training	4,634	18,500	18,500	18,500	0%	-
Office Supplies	19,824	32,000	32,000	24,515	0%	(7,485)
Buildings & Grounds O&M	93,257	92,000	92,000	92,000	2%	-
Utilities	76,345	120,000	120,000	116,477	2%	(3,523)
Offsite Concession Expenses	35,257	64,000	64,000	64,000	1%	-
Center Court Expenses	50,245	165,500	165,500	165,500	3%	-
Electricity - Lehi City Power	225,789	205,000	230,000	230,000	4%	25,000
Professional & Technical	114,282	108,100	124,000	124,000	2%	15,900
Program Expenditures	86,207	148,000	148,000	148,000	3%	-
Gymnastics	37,871	76,000	76,000	76,000	1%	-
Dance	4,744	11,900	11,900	11,900	0%	-
Itty Bitty Ball	3,336	10,000	10,000	10,000	0%	-
Birthday Parties	4,078	8,500	8,500	8,500	0%	-
Facilities Stations	9,751	19,400	19,400	19,400	0%	-
Pool Operation & Maintenance	114,045	140,000	140,000	140,000	2%	-
Miscellaneous	5,102	23,000	23,000	23,000	0%	-
Swimming Program	56,456	88,000	97,800	97,800	2%	9,800
Tennis	2,318	6,000	6,000	6,000	0%	-

LEGACY CENTER-CONTINUED

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Legacy Center - Expenditures continued						
Golf	6,985	6,800	7,800	7,800	0%	1,000
Soccer Program Expense	9,169	26,000	26,000	26,000	0%	-
Volleyball Expense	2,850	10,200	10,200	10,200	0%	-
Baseball Expense	35,004	66,000	66,000	66,000	1%	-
Girls Softball	21,132	19,000	22,000	22,000	0%	3,000
Basketball Expense	151,580	134,300	150,000	150,000	3%	15,700
Flag Football Expense	6,734	9,600	9,600	9,600	0%	-
Wrestling Program Expense	1,949	2,000	2,000	2,000	0%	-
Debt Service	-	-	-	-	0%	-
Contribution to Outdoor Pool	148,258	103,582	-	-	0%	(103,582)
Capital Outlay	38,231	85,000	93,500	93,500	2%	8,500
Pool Capital Outlay	27,090	50,000	565,000	565,000	10%	515,000
Total Legacy Center Expenditures	**$ 4,509,391**	**$ 5,296,296**	**$ 5,906,292**	**$ 5,900,117**	**100%**	**$ 603,821**

OUTDOOR POOL SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Outdoor Pool Revenue	$ 159,805	$ 207,068	$ 207,068	$ 207,068	61%	$ -
Interest Income	932	-	-	-	0%	-
Legacy Center Contribution	148,258	103,582	-	-	0%	(103,582)
Re-Appropriation of Fund Balance	-	-	133,097	133,097	39%	133,097
Total Revenues	$ 308,995	$ 310,650	$ 340,165	$ 340,165	100%	$ 29,515
Personnel FTEs	4.28	4.28	4.28	4.28		0
Expenditures						
Salaries & Wages	$ 154,893	$ 155,736	$ 158,072	$ 158,072	46%	$ 2,336
Employee benefits	11,842	11,914	12,093	12,093	4%	179
Outdoor Pool Operation & Maintenance	139,978	143,000	143,000	143,000	42%	-
Capital Outlay	181,290	-	27,000	27,000	8%	27,000
Total Expenditures	$ 488,003	$ 310,650	$ 340,165	$ 340,165	100%	$ 29,515
Surplus(Deficit)	**$ (179,008)**	**$ -**	**$ 0**	**$ 0**		

CAPITAL PROJECTS SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Grant Revenue	$ -	$ -	$ -	$ -	0%	$ -
Interest income	116,623	500	500	500	0%	-
Bond Proceeds	-	-	-	-	0%	-
Appropriation from fund balance	-	15,050,483	21,537,624	19,387,124	36%	4,336,641
Sales tax	486,729	432,500	432,500	432,500	1%	-
PARC Tax (RAP tax)	-	5,000,000	-	-	0%	(5,000,000)
Transfer from General Fund	8,300,000	-	-	1,250,500	2%	1,250,500
Sale of Assets	1,595,155	-	-	-	0%	-
Bond Proceeds	-	-	9,400,000	29,400,000	55%	29,400,000
Transfer From PARC Tax Fund	-	-	-	1,050,000	2%	1,050,000
Miscellaneous	271,917	1,600,000	1,600,000	1,600,000	3%	-
Total Revenues	$ 10,498,506	$ 20,483,483	$ 32,970,624	$ 53,120,624	100%	$ 31,037,141
Expenditures						
Transfer to Debt Service Fund	$ 50,873	$ -	$ -	$ -	0%	$ -
Transfer to Fleet Fund	-	1,000,000	500,000	500,000	1%	(500,000)
Transfer to IT Fund	-	1,000,000	-	150,000	0%	(850,000)
Debt Service - Cabelas	377,863	427,500	427,500	427,500	1%	-
Debt Service Interest - Fire Station	-	-	-	-	0%	-
Debt Service Principal - Fire Station	108,866	-	-	-	0%	-
Bond Costs	5,250	5,000	5,000	5,000	0%	-
Irrigation Central Control Upgrade	132,252	138,124	138,124	138,124	0%	-
Sidewalks	306,523	400,000	400,000	400,000	1%	-
Road Widening & Infrastructure	-	-	-	-	0%	-
Sidewalks 500 W & 1900 S	-	-	-	-	0%	-
Safe Routes to School	106,097	-	-	-	0%	-
New Public Safety Building	4,496,797	-	-	-	0%	-
Parks Building	3,810	2,000,000	2,000,000	2,000,000	4%	-

CAPITAL PROJECTS SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Public Safety Building Design	2,596	-	-	-	0%	-
Dry Creek Lake Rescue Equipment	-	55,000	-	-	0%	(55,000)
Wines Park Irrigation Renovation	32,891	-	-	-	0%	-
Sub-Compact Utility Tractor	22,000	-	-	-	0%	-
Nuisance Trees & Damaged Sidewalks	51	150,000	150,000	150,000	0%	-
Library Self Check Out Kiosks	38,065	-	-	-	0%	-
TIGR Ped Bridge (SR 92)	6,011,874	-	-	-	0%	-
Traverse Mountain Reforestation	253,260	-	-	-	0%	-
Triumph Ped Bridge	-	649,050	-	-	0%	(649,050)
Chipper	-	42,000	-	-	0%	(42,000)
Tractor	-	36,000	-	-	0%	(36,000)
Playground Replacements	-	60,000	-	-	0%	(60,000)
Fencing Replacement at Vets Ball Park	-	35,000	35,000	35,000	0%	-
UTV with Sprayer & Snow Plow	-	29,809	-	-	0%	(29,809)
Mellor Rhoades Park Construction	-	5,000,000	-	-	0%	(5,000,000)
Park Construction	-	5,000,000	10,000,000	10,000,000	19%	5,000,000
Family Park - All Abilities Playground	-	5,000,000	7,000,000	7,000,000	13%	2,000,000
Frisbee Golf Course	-	15,000	15,000	15,000	0%	-
Vets Ballpark Parking Lot	-	500,000	-	-	0%	(500,000)
Park N Ride	1,896	-	-	-	0%	-
Hospital Loop Road	-	2,000,000	2,600,000	2,600,000	5%	600,000
Property Improvements	-	-	-	-	0%	-
City Hall Campus	-	-	-	20,000,000	38%	20,000,000
Fire Station 84	-	-	9,400,000	9,400,000	18%	9,400,000
Court House Design	-	-	300,000	300,000	1%	300,000
Reserves	-	-	-	-	0%	-
Total Expenditures	$ 11,950,965	$ 23,542,483	$ 32,970,624	$ 53,120,624	99%	$ 30,928,141
Surplus(Deficit)	**$ (1,452,458)**	**$ (3,059,000)**	**$ -**	**$ -**		

DEBT SERVICE

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Transfer from Capital Projects	$ 50,873	$ -	$ -	$ -	0%	$ -
Transfer from Police Impact Fees	-	-	-	250,500	13%	$ 250,500
Transfer from General Fund	1,814,495	1,872,733	1,872,733	1,618,338	87%	$ (254,395)
Fund Balance Appropriation	-	-	-	-	0%	$ -
Total Revenues	$ 1,865,368	$ 1,872,733	$ 1,872,733	$ 1,868,838	100%	$ (3,895)
Expenses						
Debt Service - Interest	$ 950,068	$ 927,733	$ 927,733	$ 898,838	48%	$ (28,895)
Debt Service - Principal	905,000	935,000	935,000	960,000	51%	25,000
Bond Costs	-	-	10,000	10,000	0%	10,000
Total Expenses	$ 1,855,068	$ 1,862,733	$ 1,872,733	$ 1,868,838	100%	$ 6,105
Surplus(Deficit)	**$ 10,301**	**$ 10,000**	**$ -**	**$ -**		

CDBG

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Income	$ -	$ -	$ -	$ -	0%	$ -
CDBG	474,842	240,000	240,000	240,000	100%	-
Re-appropriation of Fund Balance	-	-	79,500	79,500	100%	79,500
Total Revenues	$ 474,842	$ 240,000	$ 319,500	$ 319,500	100%	$ 79,500
Expenditures						
CDBG Project improvements	$ 476,245	$ 240,000	$ 277,000	$ 277,000	100%	$ 37,000
CDBG Adminstration Costs	$ -	$ -	$ 40,000	$ 40,000	100%	$ 40,000
CDBG Program Expenses	$ -	$ -	$ 2,500	$ 2,500	100%	$ 2,500
Total Expenditures	$ 476,245	$ 240,000	$ 319,500	$ 319,500	100%	$ 2,500
Surplus(Deficit)	**$ (1,402)**	**$ -**	**$ -**	**$ -**		

FIRE IMPACT FEES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Income	$ 2,828	$ 1,000	$ 1,000	$ 1,000	0%	$ -
Impact Fees	385,478	400,000	400,000	400,000	100%	-
Fund balance appropriation	-	-	2,078,000	-	0%	-
Bond proceeds	-	-	-	-	0%	-
Total Revenues	$ 388,306	$ 401,000	$ 2,479,000	$ 401,000	100%	$ -
Expenditures						
Future fire station	$ 741,245	$ -	$ -	$ -	0%	$ -
Interest Expense	-	-	-	-	0%	-
Cost of Issuance	-	-	-	-	0%	-
Fire Station 84 Construction	-	377,009	-	-	0%	(377,009)
Fire Station 84 Equipment	-	-	2,479,000	-	0%	-
Reserves	-	23,991	-	401,000	100%	377,009
Total Expenditures	$ 741,245	$ 401,000	$ 2,479,000	$ 401,000	100%	$ -
Surplus(Deficit)	**$ (352,939)**	**$ -**	**$ -**	**$ -**		

PARKS IMPACT FEES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Earnings	$ 8,596	$ 30,000	$ 30,000	$ 30,000	0%	$ -
Park Impact Fees	3,949,343	2,050,000	2,050,000	2,050,000	21%	-
Utah State Parks Grant	121,101	-		-	0%	-
Developer Contributions	-	2,450,183	4,683,693	4,683,693	49%	2,233,510
Proceeds from Sale of Land	-	-	-	-	0%	-
Reappropriate Fund Balance	-	3,419,440	2,801,440	2,801,440	29%	(618,000)
Total Revenues	$ 4,079,039	$ 7,949,623	$ 9,565,133	$ 9,565,133	100%	$ 1,615,510
Expenditures						
Debt Service - Principal	$ -	$ -	$ -	$ -	0%	$ -
Interest Expense	-	-	-	-	0%	-
Family Park	1,417,157	250,000	250,000	250,000	3%	-
Mellor Rhodes Park - Design	235,781	750,000	-	-	0%	(750,000)
Shadow Ridge	-	1,840,000	2,140,000	2,140,000	22%	300,000
Monument Park	14,690	1,536,000	1,536,000	1,536,000	16%	-
Sage Vista 3 Acre Park	-	-	-	-	0%	-
Parks, Trails, & Open Space Master Plan	-	-	-	-	0%	-
Upsizing Trails	239,288	105,000	105,000	105,000	1%	-
Mountain Bike Trails	79,274	330,440	330,440	330,440	3%	-
Fire83 Park	28,689	-	-	-	0%	-
Lights at Sports Park	166,831	53,000	-	-	0%	(53,000)
Willow Park Upgrades	45,567	700,000	450,000	450,000	5%	(250,000)
Holbrook Farms Park	-	2,208,548	2,208,548	2,208,548	23%	-
Cold Springs Ranch Park	-	176,635	2,475,145	2,475,145	26%	2,298,510
Steve Roll Rotary Park	-	-	70,000	70,000	1%	70,000
Capital & Impact Fee Study	-	-	-	-	0%	-
Reserves	-	-	-	-	0%	-
Total Expenditures	$ 2,227,277	$ 7,949,623	$ 9,565,133	$ 9,565,133	100%	$ 1,615,510
Surplus (Deficit)	**$ 1,851,763**	**$ -**	**$ -**	**$ -**		

POLICE IMPACT FEES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Earnings	$ -	$ 500	$ 500	$ 500	0%	$ -
Police Impact Fees	291,751	250,000	250,000	250,000	100%	-
Proceeds from Issuance of Debt	-	-	-	-	0%	-
Contribution from General Fund	-	-	-	-	0%	-
Reappropriate Fund Balance	-	-	-	-	0%	-
Total Revenues	$ 291,751	$ 250,500	$ 250,500	$ 250,500	100%	$ -
Expenditures						
Land Purchase	$ -	$ -	$ -	$ -	0%	$ -
Interest Expense	-	-	-	-	0%	-
New Police Building Design	-	-	-	-	0%	-
Transfer to Debt Service Fund	-	-	250,500	250,500	100%	250,500
Reserves	-	250,500	-	-	0%	(250,500)
Total Expenditures	$ -	$ 250,500	$ 250,500	$ 250,500	100%	$ -
Surplus(Deficit)	**$ 291,751**	**$ -**	**$ -**	**$ -**		

ROAD IMPACT FEES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Earnings	$ -	$ -	$ -	$ -	0%	$ -
Road Impact Fees	1,907,365	2,000,000	2,000,000	2,000,000	32%	-
Contributions from Developers	-	-	-	-	0%	-
UDOT Contributions	73,000	50,000	50,000	50,000	1%	-
County Contributions	6,816,296	10,065,000	4,000,000	4,000,000	64%	(6,065,000)
Reappropriate Fund Balance	-	-	235,000	235,000	4%	235,000
Total Revenues	$ 8,796,661	$ 12,115,000	$ 6,285,000	$ 6,285,000	100%	$ (5,830,000)
Expenditures						
Interest Expense	$ -	$ -	$ -	$ -	0%	$ -
Signals	148,487	200,000	250,000	250,000	4%	50,000
Streets Widening	492,534	275,000	275,000	275,000	4%	-
600 E North of Dry Creek	1,590	750,000	750,000	750,000	12%	-
Jordan Willows Conn Rd	-	10,000	10,000	10,000	0%	-
Center Street & SR92	-	50,000	50,000	50,000	1%	-
Accel/Deccel @ SR92 & 500 West	-	20,000	20,000	20,000	0%	-
Traverse Blvd TRAX Xing & Road	325	80,000	80,000	80,000	1%	-
Triumph (Frontage Rd to TRAX Xing)	100,951	-	-	-	0%	-
Main Street 2300 W to Crossroads	7,067,955	8,000,000	500,000	500,000	8%	(7,500,000)
1200 West	-	-	-	-	0%	-
Ashton Blvd Relocation	-	-	-	-	0%	-
I15 & 300 W Enhancement	50,000	100,000	-	-	0%	(100,000)
700 South Cycle Track Project	151,473	1,600,000	1,500,000	1,500,000	24%	(100,000)
1200 East Project	115,660	50,000	50,000	50,000	1%	-
2300 West - Main to 2100 North	-	500,000	2,500,000	2,500,000	40%	2,000,000
Accel/Decel - Redwood/2100N	299,301	200,000	200,000	200,000	3%	-
Road Master Plan & Impact Fee	30,849	100,000	100,000	100,000	2%	-
Reserves	-	180,000	-	-	0%	(180,000)
Total Expenditures	$ 8,459,124	$ 12,115,000	$ 6,285,000	$ 6,285,000	100%	$ (5,830,000)
Surplus(Deficit)	**$ 337,536**	**$ -**	**$ -**	**$ -**		

CULINARY WATER SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Miscellaneous	$ 146,232	$ 100,000	$ 100,000	$ 100,000	1%	$ -
Interest Income	74,448	-	-	-	0%	-
Water service charges	6,861,482	6,776,088	7,257,190	7,319,354	80%	543,266
Water hook up fees	605,026	350,000	350,000	650,000	7%	300,000
CWP Water Revenues	3,338,726	1,000,000	1,000,000	1,000,000	11%	-
Gain/Loss on Sale Fixed Assets	4,085	-	-	-	0%	-
Contributions from developers	3,049,354	-	-	-	0%	-
As Built Drawing Fees	134,800	135,000	135,000	135,000	1%	-
Bond Proceeds	-	-	-	-	0%	-
Contributions from developers	412,383	-	-	-	0%	-
Reappropriation of fund balance	-	-	4,638,108	-	0%	-
Total Revenues	$ 14,626,535	$ 8,361,088	$ 13,480,298	$ 9,204,354	100%	$ 843,266
Total Expenses	$ 10,022,300	$ 8,361,088	$ 13,480,299	$ 9,204,355		
Total Surplus/Deficit	**$ 4,604,235**	**$ -**	**$ (0)**	**$ (0)**		

CULINARY WATER EXPENSES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTEs	15	15	17	16		1
Salaries	$ 949,266	$ 1,060,296	$ 1,242,672	$ 1,170,672	13%	$ 110,376
Overtime	51,455	40,000	40,000	40,000	0%	-
Employee Benefits	454,375	617,130	719,815	676,730	7%	59,600
Uniforms	2,750	7,200	8,250	7,800	0%	600
Bond Costs	-	-	-	-	0%	-
Books, Subscriptions, Memberships	14,590	10,250	10,250	10,250	0%	-
Travel & Training	12,522	29,000	31,500	31,500	0%	2,500
Office Supplies	11,088	11,000	11,000	10,268	0%	(732)
Fleet Fund Charges	220,500	260,000	260,000	260,000	3%	-
Buildings & Grounds O&M	62,198	55,000	55,000	163,367	2%	108,367
Utilities	26,625	42,000	42,000	27,661	0%	(14,339)
Supplies & Maintenance	29,129	83,000	83,000	83,000	1%	-
Water Purchase (Share Rent)	1,139,320	1,409,800	1,882,060	1,882,060	20%	472,260
Risk Mgmt Fund Charges	60,000	60,000	60,000	60,000	1%	-
Electricity - Lehi City Power	415,941	600,000	600,000	600,000	7%	-
Professional & Technical	98,988	133,000	133,000	133,000	1%	-
IT Fund Charges	37,000	37,000	37,000	52,071	1%	15,071
Bond Fees	37	6,500	6,500	6,500	0%	-
Billing Expense	70,533	50,000	50,000	50,000	1%	-
Bad Debt Expense	7,342	15,000	15,000	15,000	0%	-
Special Department Supplies	9,671	12,000	12,000	12,000	0%	-
Tools	8,619	20,000	35,000	20,000	0%	-
System Maintenance	394,411	470,000	550,000	550,000	6%	80,000
Meter Replacement	-	125,000	125,000	125,000	1%	-
Debt Service	144,881	286,232	286,232	280,151	3%	(6,081)
Allocation to General Fund	300,000	300,000	300,000	300,000	3%	-
CWP Water Purchase	3,338,726	1,000,000	1,000,000	1,000,000	11%	-
Meter Annual Maintenance	84,950	59,325	62,325	62,325	1%	3,000

CULINARY WATER EXPENSES-CONTINUED

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Water expenses - continued						
Capital	-	-	45,000	-	0%	-
Spring Line Replace	-	300,000	300,000	300,000	3%	-
600 E Tank Replacement	-	-	1,500,000	500,000	5%	500,000
Springs Rehabilitation	-	350,000	350,000	350,000	4%	-
Sandpit Transmission Line	-	-	1,402,695	-	0%	-
Sandpit Tank/Pump	-	-	1,800,000	-	0%	-
2300 W Pioneer Crossing CWP Connection	-	100,000	100,000	100,000	1%	-
Public Works Facility Site Planning	-	50,000	75,000	75,000	1%	25,000
Security Equipment	-	50,000	50,000	50,000	1%	-
Dry Creek Well Rehabilitation	-	-	200,000	200,000	2%	200,000
Subdivision Development	-	-	-	-	0%	-
Depreciation & amoritization	2,077,383	-	-	-	0%	-
Reserves	-	712,355	-	-	0%	(712,355)
Total Culinary Water Expenses	**$ 10,022,300**	**$ 8,361,088**	**$ 13,480,299**	**$ 9,204,355**	**100%**	**$ 843,267**

CULINARY WATER IMPACT FEES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Earnings	$ 4,068	$ 25,000	$ 25,000	$ 25,000	0%	$ -
Water Impact Fees	1,420,364	1,000,000	1,000,000	1,000,000	12%	-
Contributions from Developers	-	2,600,000	4,700,000	4,700,000	57%	2,100,000
Reappropriate Fund Balance	-	3,117,000	2,567,000	2,567,000	31%	(550,000)
Total Revenues	$ 1,424,432	$ 6,742,000	$ 8,292,000	$ 8,292,000	100%	$ 1,550,000
Expenses						
Pipe Oversizing	$ -	$ 72,000	$ 72,000	$ 72,000	1%	$ -
Master plan and impact fee study	-	-	-	-	0%	-
Interest Expense	-	-	-	-	0%	-
Holbrook Upper Tank & Pump	-	-	-	-	0%	-
Traverse Source	-	50,000	-	-	0%	(50,000)
Flight Park Well & Lines	-	50,000	2,400,000	2,400,000	29%	2,350,000
600 E Tank	-	1,500,000	500,000	500,000	6%	(1,000,000)
TP Booster Pump Station	-	20,000	20,000	20,000	0%	-
Sandpit Tank/Pump	-	1,800,000	-	-	0%	(1,800,000)
Holbrook Upper Tank & Pump	-	-	-	-	0%	-
TM (PT) Flight Park Tank & Lines	-	1,500,000	2,300,000	2,300,000	28%	800,000
MICRON (SKYE) AP Well, BP, Lines	-	1,800,000	1,800,000	1,800,000	22%	-
1200 East Booster Pump Station	-	-	600,000	600,000	7%	600,000
West Side Tank #2	-	-	600,000	600,000	7%	600,000
Reserves	-	-	-	-	0%	-
Total Expenses	$ -	$ 6,792,000	$ 8,292,000	$ 8,292,000	100%	$ 1,500,000
Surplus(Deficit)	**$ 1,424,432**	**$ (50,000)**	**$ -**	**$ -**		

SEWER SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Miscellaneous	$ 51,750	$ 25,000	$ 25,000	$ 25,000	0%	$ -
Interest Income	31,127	-	-	-	0%	-
Sewer charges	9,553,148	10,160,089	10,363,291	10,363,291	92%	203,202
Contributions capital funding	4,393,626	-	-	-	0%	-
Gain/Loss of Fixed Assets	-	-	-	-	0%	-
Reappropriation of Fund Balance	-	846,164	1,160,393	936,675	8%	90,511
Total Revenues	$ 14,029,651	$ 11,031,253	$ 11,548,684	$ 11,324,966	100%	$ 293,713
Total Expenses	$ 11,360,091	$ 11,031,253	$ 11,548,684	$ 11,324,966	100%	$ 293,713
Surplus(Deficit)	**$ 2,669,560**	**-**	**$ (0)**	**$ (0)**		

SEWER EXPENSES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTE's	8	8	10	8		0
Salaries & Wages	$ 371,651	$ 438,396	$ 597,618	$ 488,122	4%	$ 49,726
Overtime	20,612	20,000	20,000	20,000	0%	-
Employee Benefits	192,606	275,674	357,073	315,022	3%	39,348
Uniforms	589	6,200	7,400	6,200	0%	-
Books, Subscriptions, Memberships	2,413	1,400	1,600	1,400	0%	-
Travel & Training	1,536	16,200	16,200	16,200	0%	-
Office Supplies	1,615	5,500	5,500	5,500	0%	-
Fleet Fund Charges	125,000	167,279	258,050	167,279	1%	-
Buildings & Grounds O&M	60,430	60,000	60,000	60,000	1%	-
Utilities	1,349	10,000	10,000	7,865	0%	(2,135)
Supplies & Maintenance	32,044	50,000	50,000	50,000	0%	-
Risk Mgmt Fund Charges	50,000	50,000	50,000	50,000	0%	-
Electricity - Lehi City Power	59,884	5,000	5,000	5,000	0%	-
Professional & Technical	5,154	50,000	50,000	50,000	0%	-
IT Fund Charges	7,000	7,000	7,000	29,135	0%	22,135
Timpanogos Special Service District	7,889,402	9,231,989	9,416,629	9,416,629	83%	184,640
Billing Expense	120,695	35,000	35,000	35,000	0%	-
Bad Debt Expense	7,922	30,000	30,000	30,000	0%	-
Department Supplies	4,285	10,000	10,000	10,000	0%	-
System Maintenance	94,526	98,615	98,615	98,615	1%	-
Interest Expense	-	3,000	3,000	3,000	0%	-
Allocation to General Fund	150,000	150,000	150,000	150,000	1%	-
Amortization Expense	-	-	-	-	0%	-

SEWER EXPENSES-CONTINUED

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Sewer Expenses - continued						
Depreciation	2,161,378	-	-	-	0%	-
Reserves	-	-	-	-	0%	-
Manhole/Main Line Rehab	-	310,000	310,000	310,000	3%	-
Capital	-	-	-	-	0%	-
Capital Improvements	-	-	-	-	0%	-
Total Sewer Expenses	**$ 11,360,091**	**$ 11,031,253**	**$ 11,548,684**	**$ 11,324,966**	**100%**	**$ 293,713**

SEWER IMPACT FEES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Earnings	$ 12,445	$ 10,000	$ 10,000	$ 10,000	0%	$ -
Sewer Impact Fees	1,339,553	400,000	400,000	400,000	7%	-
Contributions From Developers	-	-	-	-	0%	-
Reappropriate Fund Balance	-	5,520,000	5,540,000	5,540,000	93%	20,000
Total Revenues	$ 1,351,998	$ 5,930,000	$ 5,950,000	$ 5,950,000	100%	$ 20,000
Expenses						
Oversizing Pipe	$ -	$ -	$ 90,000	$ 90,000	2%	$ 90,000
Interest Expense	-	-	-	-	0%	-
Master Plan & Impact Fee Study	-	-	20,000	20,000	0%	20,000
Jordan Willow Pump Station Addition	-	20,000	20,000	20,000	0%	-
Jordan Willow Pump Line	-	20,000	20,000	20,000	0%	-
850 E Sewer to 700 S	-	500,000	500,000	500,000	8%	-
2100 N Sewer 1200 W to 1700 W	-	-	300,000	300,000	5%	300,000
Jordan River Sewer (Main to 1900 S)	-	-	5,000,000	5,000,000	84%	5,000,000
Reserves	-	-	-	-	0%	-
Total Expenses	$ -	$ 540,000	$ 5,950,000	$ 5,950,000	100%	$ 5,410,000
Surplus(Deficit)	**$ 1,351,998**	**$ 5,390,000**	**$ -**	**$ -**		

ELECTRIC SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Electric sales taxable	$ 34,938,870	$ 35,619,419	$ 37,340,482	$ 37,340,482	81%	$ 1,721,063
Electric sales tax exempt	3,768,806	3,188,134	3,246,998	3,246,998	7%	58,864
Electric hook up fees	563,713	275,000	275,000	275,000	1%	-
Miscellaneous	294,512	175,000	175,000	175,000	0%	-
Temporary power charges	70,075	75,000	75,000	75,000	0%	-
Damage revenue	4,833	25,000	25,000	25,000	0%	-
Salvage revenue	63,579	25,000	25,000	25,000	0%	-
Contribution capital funding	1,042,157	-	-	-	0%	-
Late payment penalties	118,729	185,000	185,000	185,000	0%	-
Pole attachment	63,585	50,000	50,000	50,000	0%	-
Subdivision reimbursement	4,998,966	3,500,000	3,500,000	3,500,000	8%	-
Interest income	154,059	40,000	40,000	40,000	0%	-
Gain/loss on sale of fixed assets	5,540	-	2,413,894	1,315,840	0%	1,315,840
Total Revenues	$ 46,087,424	$ 43,157,553	$ 47,351,374	$ 46,253,320	97%	$ 3,095,767
Total Expenses	$ 40,399,825	$ 43,157,553	$ 47,351,374	$ 46,253,320	100%	3,095,767
Surplus(Deficit)	**$ 5,687,599**	**$ -**	**$ 0**	**$ 0**		

ELECTRIC EXPENSES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTE's	34.5	36.5	40.5	39.5		3
Salaries & Wages	$ 2,374,800	$ 2,946,587	$ 3,511,195	$ 3,423,995	7%	$ 477,408
Overtime	118,664	186,887	282,967	282,967	1%	96,080
Employee Benefits	964,655	1,472,586	1,731,116	1,704,956	4%	232,370
Uniforms	24,213	21,100	46,580	45,215	0%	24,115
Books, Subscriptions, Memberships	2,729	3,000	3,000	3,000	0%	-
Travel & Training	20,284	60,100	63,600	63,600	0%	3,500
Office Supplies	12,105	21,000	25,014	21,000	0%	-
Fleet Fund Charges	515,000	515,000	549,911	526,637	1%	11,637
Buildings & Grounds O&M	174,177	162,500	162,500	162,500	0%	-
Utilities	81,288	56,000	56,000	56,000	0%	-
Supplies & Maintenance	103	6,500	6,500	6,500	0%	-
Risk Mgmt Fund Charges	300,000	300,000	300,000	300,000	1%	-
Electricity - Lehi City Power	65,366	55,000	55,000	55,000	0%	-
Professional & Technical	200,986	387,500	552,500	364,500	1%	(23,000)
IT Fund Charges	23,000	24,000	24,000	56,959	0%	32,959
Computer Maintenance	-	6,000	-	-	0%	(6,000)
Bond Fees	1,650	2,500	2,500	2,500	0%	-
Contract Services Expense	82,740	130,000	330,000	330,000	1%	200,000
Internal Generation Maintenance	52,939	10,000	54,200	54,200	0%	44,200
Safety	27,601	42,150	42,150	42,150	0%	-
Billing Expense	326,309	340,000	340,000	340,000	1%	-
Bad Debt Expense	64,929	65,000	65,000	65,000	0%	-
System Maintenance	1,169,757	820,000	820,000	820,000	2%	-
Miscellaneous	20,453	29,800	29,800	29,800	0%	-
Resale Power Purchase	28,022,201	28,109,748	33,297,591	33,297,591	72%	5,187,843
Line Maintenance	79,312	61,000	70,500	70,500	0%	9,500
Substation Maintenance	16,885	53,500	53,500	53,500	0%	-
Power Locating	21,975	16,000	16,000	16,000	0%	-

ELECTRIC EXPENSES-CONTINUED

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Expenses - Continued						
Debt Service	605,395	1,252,500	2,056,250	1,255,250	3%	2,750
Allocation to General Fund	541,000	541,000	541,000	541,000	1%	-
Depreciation	4,245,484	-	-	-	0%	-
Amorization Cost	243,825	-	-	-	0%	-
Reserves	-	3,735,595	-	-	0%	(3,735,595)
Rocky Mtn Power Line Purchases	-	150,000	150,000	150,000	0%	-
Improvements to system	-	400,000	700,000	700,000	2%	300,000
Street Light Project	-	250,000	350,000	350,000	1%	100,000
Subdivision Construction	-	300,000	300,000	300,000	1%	-
New Equipment	-	150,000	248,000	248,000	1%	98,000
Capital outlay	-	395,000	285,000	285,000	1%	(110,000)
Substation security	-	30,000	30,000	30,000	0%	-
Designated City Projects	-	50,000	200,000	200,000	0%	150,000
Total Electric Expenses	**$ 40,399,825**	**$ 43,157,553**	**$ 47,351,374**	**$ 46,253,320**	**100%**	**$ 3,095,767**

ELECTRIC IMPACT FEES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Earnings	$ 15,819	$ 35,000	$ 35,000	$ 35,000	0%	$ -
Electric Impact Fees	5,293,659	3,000,000	3,000,000	3,000,000	30%	-
Reappropriate Fund Balance	-	6,797,000	6,957,000	6,957,000	70%	160,000
Total Revenues	$ 5,309,478	$ 9,832,000	$ 9,992,000	$ 9,992,000	100%	$ 160,000
Expenses						
Ashton 6-21 & 6-22 Line Extension	$ -	$ -	$ 130,000	$ 130,000	1%	$ 130,000
Master Plan & Impact Fee Study	-	-	30,000	30,000	0%	30,000
River Crossing & Thanksgiving Point	-	550,000	550,000	550,000	6%	-
3-21 Circuit Reconductor (500W-1100W)	-	90,000	90,000	90,000	1%	-
3-11 Line Extension Upgrade	-	540,000	540,000	540,000	5%	-
8-22 Line Extension	-	325,000	325,000	325,000	3%	-
300 N Rebuild	-	115,000	115,000	115,000	1%	-
900 N Reconductor	-	100,000	100,000	100,000	1%	-
Pine Meadow Blvd Reconductor	-	170,000	170,000	170,000	2%	-
North Point Substation	-	7,000,000	7,000,000	7,000,000	70%	-
North Point Getaways	-	-	942,000	942,000	9%	942,000
Reserves	-	-	-	-	0%	-
Total Expenses	$ -	$ 8,890,000	$ 9,992,000	$ 9,992,000	100%	$ 1,102,000
Surplus(Deficit)	**$ 5,309,478**	**$ 942,000**	**$ -**	**$ -**		

GARBAGE SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Garbage Service Fees	$ 3,810,617	$ 3,841,844	$ 3,995,518	$ 3,995,518	99%	$ 153,674
Dump pass receipts	30,640	-	-	-	0%	-
Appropriate fund balance	-	87,391	35,217	35,217	1%	(52,174)
Interest Income	651	500	500	500	0%	-
Total Revenues	**$ 3,841,908**	**$ 3,929,735**	**$ 4,031,235**	**$ 4,031,235**	100%	$ 101,500
Expenses						
Garbage Contract Payment	$ 2,796,555	$ 2,900,000	$ 3,001,500	$ 3,001,500	74%	$ 101,500
Operations Exp/Tons Per Month	943,621	964,735	964,735	964,735	24%	-
Glass recyling	3,634	10,000	10,000	10,000	0%	-
Billing Expense	3,292	25,000	25,000	25,000	1%	-
Bad Debt Expense	3,968	10,000	10,000	10,000	0%	-
City Cleanup Expense	8,399	10,000	10,000	10,000	0%	-
Reserves	-	-	-	-	0%	-
Allocation to General Fund	10,000	10,000	10,000	10,000	0%	-
Total Garbage Expenses	**$ 3,769,469**	**$ 3,929,735**	**$ 4,031,235**	**$ 4,031,235**	100%	$ 101,500
Surplus(Deficit)	**$ 72,440**	**$ -**	**$ (0)**	**$ (0)**		

PRESSURIZED IRRIGATION SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Miscellaneous	$ 385,619	$ 35,000	$ 35,000	$ 35,000	0%	$ -
Interest Income	51,313	1,500	1,500	1,500	0%	-
Secondary water hook ups	415,933	350,000	350,000	350,000	3%	-
Contributions from developers	5,646,160	-	-	-	0%	-
Pressurized service charges	4,103,868	4,097,340	4,304,665	4,304,665	31%	207,325
Gain/Loss of Fixed Assets	-	-	-	-	0%	-
Bond Proceeds	-	-	-	-	0%	-
Transfer from Culinary Water	-	-	222,549	-	0%	-
Reappropriated fund balance	-	8,275,000	9,102,987	9,138,651	66%	863,651
Total Revenues	$ 10,602,893	$ 12,758,840	$ 14,016,701	$ 13,829,816	100%	$ 1,070,976
Total Expenses	$ 5,464,756	$ 12,758,840	$ 14,016,702	$ 13,829,816	100%	$ 1,070,976
Surplus/(Deficit)	**$ 5,138,137**	**$ -**	**$ (0)**	**$ 0**		

PRESSURIZED IRRIGATION EXPENSES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTE's	5	5	5	5		0
Salaries & Wages	$ 282,110	$ 297,850	$ 307,703	$ 307,703	2%	$ 9,853
Overtime	10,749	15,000	15,000	15,000	0%	-
Employee Benefits	147,887	175,495	194,838	194,838	1%	19,343
Uniforms	902	3,000	3,000	3,000	0%	-
Books, Subscriptions, Memberships	3,243	500	500	500	0%	-
Travel & Training	821	7,000	7,000	7,000	0%	-
Office Supplies	1,494	7,000	7,000	7,000	0%	-
Fleet Fund Charges	25,000	25,000	25,000	25,000	0%	-
Buildings & Grounds O&M	20,299	20,000	20,000	20,000	0%	-
Utilities	410	2,000	2,000	2,000	0%	-
Risk Mgmt Fund Charges	50,000	50,000	50,000	50,000	0%	-
Electricity - Lehi City Power	409,388	400,000	400,000	400,000	3%	-
Professional & Technical	22,266	40,000	40,000	40,000	0%	-
Bond Fees	2,187	3,000	3,000	3,000	0%	-
Billing Expense	710	15,000	15,000	15,000	0%	-
Bad Debt Expense	3,816	15,000	15,000	15,000	0%	-
Supplies & Maintenance	5,333	16,000	16,000	16,000	0%	-
PI Meters	39,121	75,000	75,000	75,000	1%	-
Water Share Assessments	1,122,328	1,300,000	1,300,000	1,300,000	9%	-
System Maintenance	209,651	400,000	400,000	400,000	3%	-
Interest Expense	-	-	-	-	0%	-
Debt Service	606,769	1,052,521	1,235,681	1,048,796	8%	(3,726)
Fire Hydrant/Mainline Replace	-	400,000	400,000	400,000	3%	-
SCADA Upgrades	-	20,000	20,000	20,000	0%	-
Reserves	-	79,494	-	-	0%	(79,494)

PRESSURIZED IRRIGATION EXPENSES-CONTINUED

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
PI - expenses continued						
Depreciation	2,435,292	-	-	-	0%	-
Dry Creek Reservior	-	8,000,000	8,000,000	8,000,000	58%	-
Seasons Reservoir Repair	-	200,000	200,000	200,000	1%	-
Low Hills Zone Pressure Relieft Vault	-	75,000	-	-	0%	(75,000)
Irrigation Well Low Hills Zone-Vibbert	-	-	1,200,000	1,200,000	9%	1,200,000
Subdivision Development	-	-	-	-	0%	-
Capital	-	-	-	-	0%	-
Cost of Issuance	-	-	-	-	0%	-
Allocation to General Fund	64,980	64,980	64,980	64,980	0%	-
Total PI Expenses	**$ 5,464,756**	**$ 12,758,840**	**$ 14,016,702**	**$ 13,829,816**	**100%**	**$ 1,070,976**

PRESSURIZED IRRIGATION IMPACT FEES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Earnings	$ -	$ 25,000	$ 25,000	$ 25,000	0%	$ -
PI Impact Fees	1,406,968	900,000	900,000	900,000	18%	-
Appropriated Fund balance	-	-	-	-	0%	-
Contributions From Developers	-	3,355,000	4,095,000	4,095,000	82%	740,000
Total Revenues	$ 1,406,968	$ 4,280,000	$ 5,020,000	$ 5,020,000	100%	$ 740,000
Expenses						
Interest Expense	$ 4,386	$ -	$ -	$ -	0%	$ -
Master Plan & Impact Fee Study	-	-	20,000	20,000	0%	$ 20,000
Pipe Oversizing	-	85,000	85,000	85,000	2%	-
Low Hills expansion & piping	-	370,000	370,000	370,000	7%	-
Railroad Well & Piping	-	80,000	80,000	80,000	2%	-
West Side PI Reservoir	-	1,500,000	1,000,000	1,000,000	20%	(500,000)
Allred Well w/Booster Pump	-	20,000	-	-	0%	(20,000)
Flight Park Reservoir & Pipeline	-	1,200,000	1,600,000	1,600,000	32%	400,000
Vialetto Reservoir & Pumps	-	950,000	1,400,000	1,400,000	28%	450,000
Brooks Res Expansion & PS	-	75,000	75,000	75,000	1%	-
Relocated 600 East Well	-	-	350,000	350,000	7%	350,000
Reserves	-	-	40,000	40,000	1%	40,000
Total Expenses	$ 4,386	$ 4,280,000	$ 5,020,000	$ 5,020,000	100%	$ 740,000
Surplus(Deficit)	**$ 1,402,582**	**$ -**	**$ -**	**$ -**		

DRAINAGE SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Income	$ 15,351	$ 4,000	$ 4,000	$ 4,000	0%	$ -
Contributed capital	1,787,546	-	-	-	0%	-
Drainage service charges	2,259,583	2,341,500	2,458,575	2,458,575	100%	117,075
Reappropriate Fund Balance	-	-	-	-	0%	-
Miscellaneous revenues	-	-	-	-	0%	-
Total Revenues	$ 4,062,480	$ 2,345,500	$ 2,462,575	$ 2,462,575	100%	117,075
Total Expenses	$ 3,212,316	$ 2,345,500	$ 2,462,575	$ 2,462,575	100%	$ 117,075
Surplus(Deficit)	**$ 850,164**	**-**	**$ 0**	**$ 0**		

DRAINAGE EXPENSES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTE's	**12**	**12**	**12**	**12**		**0**
Salaries & Wages	$ 520,060	$ 639,500	$ 668,835	$ 668,835	27%	$ 29,335
Overtime	22,723	20,000	20,000	20,000	1%	-
Employee Benefits	243,830	401,764	419,609	419,609	17%	17,845
Uniforms	2,104	7,800	7,800	7,800	0%	-
Books, Subscriptions, Memberships	4,911	3,500	3,500	3,500	0%	-
Travel & Training	3,301	22,000	25,000	25,000	1%	3,000
Office Supplies	1,304	800	800	800	0%	-
Fleet Fund Charges	120,000	170,000	170,000	170,000	7%	-
Buildings & Grounds	16,926	10,000	10,000	10,000	0%	-
Risk Mgmt Fund Charges	15,000	15,000	15,000	15,000	1%	-
Professional & Technical	45,079	55,000	60,000	60,000	2%	5,000
IT Fund Charges	7,000	7,000	7,000	27,900	1%	20,900
Bond Fees	1,500	2,750	2,750	2,750	0%	-
Billing Expense	3,305	7,895	7,895	7,895	0%	-
Bad Debt Expense	2,961	7,000	7,000	7,000	0%	-
Supplies	4,115	10,000	10,000	10,000	0%	-
System Maintenance	38,211	70,000	70,000	70,000	3%	-
Debt Service	33,437	212,378	212,378	210,885	9%	(1,493)
Detention Basin's Maintenance	144,278	42,000	42,000	42,000	2%	-
Reserves	-	26,602	88,496	69,089	3%	42,487
Remedial drainage	-	233,991	233,991	233,991	10%	-
Allocation to General Fund	65,520	65,520	65,520	65,520	3%	-
Capital outlay	-	-	-	-	0%	-
Depreciation	1,916,751	-	-	-	0%	-
Pipe rehabilitation	-	315,000	315,000	315,000	13%	-
Total Drainage Expenses	**$ 3,212,316**	**$ 2,345,500**	**$ 2,462,575**	**$ 2,462,575**	**100%**	**$ 117,075**

DRAINAGE IMPACT FEES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Earnings	$ 1,123	$ 5,000	$ 5,000	$ 5,000	1%	$ -
Drainage Impact Fees	285,716	350,000	350,000	350,000	77%	-
Contributions From Developers/Bonds	-	650,000	100,000	100,000	22%	(550,000)
UDOT Contributions	-	-	-	-	0%	-
Reappropriation fund balance	-	-	-	-	0%	-
Total Revenues	$ 286,839	$ 1,005,000	$ 455,000	$ 455,000	100%	$ (550,000)
Expenses						
Interest Expense	$ -	$ -	$ -	$ -	0%	$ -
Mainline Upsizing	-	55,000	55,000	55,000	12%	-
West Side Drains	-	600,000	50,000	50,000	11%	(550,000)
Traverse Mtn Drains	-	50,000	50,000	50,000	11%	-
Dry Creek 600 E Culvert	-	-	200,000	200,000	44%	200,000
Reserves	-	100,000	100,000	100,000	22%	-
Total Expenses	$ -	$ 805,000	$ 455,000	$ 455,000	100%	$ (350,000)
Surplus(Deficit)	**$ 286,839**	**$ 200,000**	**$ -**	**$ -**		

PAYMENT IN LIEU

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Interest Earnings	$ 2,011	$ -	$ -	$ -	0%	$ -
Re-Appropriation of Fund Balance	-	320,000	400,000	400,000	80%	80,000
Payment in Lieu of Detention	30,182	100,000	100,000	100,000	20%	-
Total Revenues	$ 32,194	$ 420,000	$ 500,000	500,000	100%	$ 80,000
Expenses						
Jordan Narrow Detention Basin	$ -	$ 100,000	$ 150,000	$ 150,000	30%	$ 50,000
West Side Detention Facilities	-	120,000	50,000	50,000	10%	(70,000)
Lambert Detention Basin	-	200,000	300,000	300,000	60%	100,000
Contribution to fund balance	-	-	-	-	0%	-
Total Expenses	$ -	$ 420,000	$ 500,000	$ 500,000	100%	$ 80,000
Surplus(Deficit)	**$ 32,194**	**$ -**	**$ -**	**$ -**		

FIBER

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Fiber Revenue	$ -	$ -	$ -	$ -	0%	$ -
Interest Earned	53,195	-	-	-	0%	$ -
Bond Proceeds	-	-	-	-	0%	$ -
Fund Balance Appropriation	-	-	144,201	16,654,351	0%	$ 16,654,351
Total Revenues	$ 53,195	$ -	$ 144,201	$ 16,654,351	100%	$ 16,654,351
Expenses						
Salaries & Wages	$ -	$ -	$ 95,000	$ 95,000	1%	$ 95,000
Benefits	-	-	49,201	49,201	0%	49,201
Debt Service	505,161	1,927,742	-	2,210,150	13%	282,408
Fiber System - Engineering	-	1,700,000	-	1,700,000	10%	-
Fiber System - Backbone	-	1,100,000	-	1,100,000	7%	-
Fiber System - Drops	-	-	-	-	0%	-
Fiber System - Distribution	-	11,500,000	-	11,500,000	69%	-
Cost of Issuance	644,409	-	-	-	0%	-
Total Expenses	$ 1,149,570	$ 16,227,742	$ 144,201	$ 16,654,351	100%	$ 426,609
Surplus(Deficit)	**$ (1,096,375)**	**$ (16,227,742)**	**$ -**	**$ -**		

IT FUND SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Charge to General Fund	$ 662,700	$ 666,201	$ 664,700	$ 975,744	59%	$ 309,543
Charge to Legacy Fund	53,000	56,600	53,000	67,608	4%	11,008
Charge to Water Fund	37,000	37,000	37,000	52,071	3%	15,071
Charge to Sewer Fund	7,000	7,000	7,000	29,135	2%	22,135
Charge to Electric Fund	23,000	24,000	23,000	56,959	3%	32,959
Charge to PI Fund	-	-	-	26,601	2%	26,601
Charge to Drainage Fund	7,000	7,000	7,000	27,900	2%	20,900
Charge to Fleet Fund	2,300	2,300	2,300	3,155	0%	855
Charge to Risk Mgt Fund	4,600	4,600	4,600	4,600	0%	-
Charge to Bldgs & Grounds Fund	5,750	5,750	5,750	7,140	0%	1,390
Transfer from Capital Projects Fund	-	-	-	150,000	9%	150,000
Miscellaneous Revenue	2,697	-	-	-	0%	-
Reserves	-	253,478	950,253	256,450	15%	2,972
Interest Income	2,649	7,500	7,500	7,500	0%	-
Total Revenues	$ 807,696	$ 1,071,429	$ 1,762,103	$ 1,664,863	100%	$ 593,434
IT Operations Expenses	$ 985,064	$ 1,071,429	$ 1,762,103	$ 1,664,863	100%	$ 593,434
Surplus(Deficit)	**$ (177,368)**	**$ -**	**$ 0**	**$ 0**		

IT FUND EXPENSES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTE's	4	4	5.5	5		1
Salaries & Wages	$ 239,454	$ 253,261	$ 449,494	$ 385,254	23%	$ 131,993
Employee Benefits	116,433	163,460	171,901	171,901	10%	8,441
Books, Subscriptions, Memberships	-	2,000	2,000	2,000	0%	-
Travel & Training	6,894	15,000	15,000	15,000	1%	-
Office Supplies	4,869	1,500	1,500	1,500	0%	-
Fleet Fund Charges	1,976	3,000	3,000	3,000	0%	-
Utilities	-	5,000	5,000	5,000	0%	-
Supplies & Maintenance	240,297	178,483	336,483	303,483	18%	125,000
Risk Mgmt Fund Charges	5,000	5,000	5,000	5,000	0%	-
Professional & Technical	69,483	15,000	75,000	75,000	5%	60,000
Software Maintenance	41,070	45,000	45,000	45,000	3%	-
Miscellaneous	18,760	43,049	43,049	43,049	3%	-
Software Licensing	103,321	41,676	159,676	159,676	10%	118,000
O & M - Hardware	64,865	200,000	200,000	200,000	12%	-
Hardware Replacement	-	-	-	-	0%	-
Reserves	-	-	-	-	0%	-
Depreciation	72,642	-	-	-	0%	-
Software Upgrade	-	100,000	250,000	250,000	15%	150,000
Total IT Expenses	**$ 985,064**	**$ 1,071,429**	**$ 1,762,103**	**$ 1,664,863**	**100%**	**$ 593,434**

FLEET FUND SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Charge to General Fund	$ 2,230,735	$ 1,927,511	$ 2,175,588	$ 2,175,588	37%	$ 248,077
Charge to Legacy Fund	2,000	2,000	2,000	2,000	0%	-
Charge to Water Fund	220,500	260,000	260,000	260,000	4%	-
Charge to Sewer Fund	125,000	167,279	258,050	167,279	3%	-
Charge to Electric Fund	515,000	515,000	549,911	526,637	9%	11,637
Charge to Drainage Fund	120,000	170,000	170,000	170,000	3%	-
Charge to IT Fund	3,000	3,000	3,000	3,000	0%	-
Charge to Risk Mgt Fund	5,000	5,000	5,000	5,000	0%	-
Charge to PI Fund	25,000	25,000	25,000	25,000	0%	-
Charge to Bldgs & Grounds Fund	15,000	22,500	35,867	35,867	1%	13,367
Charge to Class C Roads	-	-	47,017	47,017	1%	47,017
Transfer from Capital Projects	-	-	500,000	500,000	8%	500,000
Reserves	-	-	-	68,975	1%	68,975
Miscellaneous	-	-	5,312,767	-	0%	-
Capital Lease	-	900,000	503,880	1,903,880	32%	1,003,880
Gain/Loss on Disposal of Fixed Assets	(21,902)	-	-	-	0%	-
Interest Income	332	20,000	20,840	20,000	0%	-
Total Revenues	$ 3,239,664	$ 4,017,290	$ 9,868,920	$ 5,910,243	100%	$ 1,892,953
Total Expenses	$ 2,564,913	$ 5,017,290	$ 9,868,920	$ 5,910,243	100%	$ 892,953
Surplus(Deficit)	**$ 674,751**	**$ (1,000,000)**	**$ (0)**	**$ (0)**		

FLEET FUND EXPENSES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTE's	4	4.5	5	4.5		0
Salaries & Wages	$ 240,526	$ 262,886	$ 323,144	$ 297,144	5%	$ 34,258
Overtime	18,421	-	-	-	0%	-
Employee Benefits	130,700	160,461	164,046	164,046	3%	3,585
Books, Subscriptions, Memberships	16,364	8,190	7,500	8,190	0%	-
Travel & Training	740	13,331	13,331	13,331	0%	-
Office Supplies	220	1,260	1,200	1,260	0%	-
Operating Expenses	592,810	472,500	572,500	572,500	10%	100,000
Fuel	469,211	560,800	701,000	701,000	12%	140,200
IT Fund Charges	3,630	2,300	2,300	3,155	0%	855
Utilities	1,933	-	-	-	0%	-
Supplies & Maintenance & Tires	12,380	75,000	75,000	75,000	1%	-
Risk Mgmt Fund Charges	5,000	5,000	5,000	5,000	0%	-
Professional & Technical	130	-	-	-	0%	-
Miscellaneous	1,654	12,911	12,911	12,911	0%	-
Capital	-	-	200,000	-	0%	-
New Vehicle Purchases	-	-	3,656,867	234,082	4%	234,082
Equipment Replacement	-	2,044,798	2,274,667	1,455,975	25%	(588,823)
Capital Lease Payments	39,115	1,355,574	1,355,574	455,574	8%	(900,000)
Capital Lease Purchases	-	-	503,880	1,903,880	32%	1,903,880
Reserves	-	42,279	-	7,195	0%	(35,084)
Depreciation	1,032,079	-	-	-	0%	-
Total Fleet Expenses	**$ 2,564,913**	**$ 5,017,290**	**$ 9,868,920**	**$ 5,910,243**	**100%**	**$ 892,953**

RISK MANAGEMENT FUND SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Charge to General Fund	$ 464,513	$ 614,513	$ 614,513	$ 614,513	47%	$ -
Charge to Legacy Fund	65,000	65,000	65,000	65,000	5%	-
Charge to Water Fund	60,000	60,000	60,000	60,000	5%	-
Charge to Sewer Fund	50,000	50,000	50,000	50,000	4%	-
Charge to Electric Fund	300,000	300,000	300,000	300,000	23%	-
Charge to PI Fund	50,000	50,000	50,000	50,000	4%	-
Charge to Drainage Fund	15,000	15,000	15,000	15,000	1%	-
Charge to IT fund	5,000	5,000	5,000	5,000	0%	-
Charge to Fleet Fund	5,000	5,000	5,000	5,000	0%	-
Charge to Bldgs & Grounds Fund	2,500	2,500	2,500	2,500	0%	-
Appropriated Fund Balance	-	-	130,233	130,233	10%	130,233
Miscellaneous revenue	22,302	-	-	-	0%	-
Interest Income	-	4,099	4,099	4,099	0%	-
Total Revenues	$ 1,039,316	$ 1,171,112	$ 1,301,345	$ 1,301,345	100%	$ 130,233
Total Expenses	$ 1,016,813	$ 1,293,721	$ 1,301,345	$ 1,301,345	100%	$ 7,624
Surplus (Deficit)	**$ 22,502**	**$ (122,609)**	**$ (0)**	**$ (0)**		

RISK MANAGEMENT FUND EXPENSES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTE's	1	1	1	1		
Salaries & Wages	$ 92,037	$ 91,322	$ 97,339	$ 97,339	7%	$ 6,017
Employee Benefits	37,843	48,349	49,956	49,956	4%	1,607
Books, Subscriptions, Memberships	1,966	2,950	2,950	2,950	0%	-
Travel & Training	-	5,000	5,000	5,000	0%	-
Office Supplies	-	500	500	500	0%	-
Fleet Fund Charges	5,000	5,000	5,000	5,000	0%	-
Damage Repairs	42,830	45,000	45,000	45,000	3%	-
Utilities	-	500	500	500	0%	-
Safety	91	20,000	20,000	20,000	2%	-
IT Fund Charges	4,600	4,600	4,600	4,600	0%	-
Electricity - Lehi City Power	125	500	500	500	0%	-
Professional & Technical	8,222	15,500	15,500	15,500	1%	-
Litigation Claims Mgmt	-	40,000	40,000	40,000	3%	-
Insurance Expense	793,086	997,500	997,500	997,500	77%	-
Miscellaneous	31,014	17,000	17,000	17,000	1%	-
Reserves	-	-	-	-	0%	-
Total Risk Mgmt Expenses	**$ 1,016,813**	**$ 1,293,721**	**$ 1,301,345**	**$ 1,301,345**	**100%**	**$ 7,624**

BUILDING/GROUNDS SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Charge to General Fund	$ 1,172,122	$ 1,172,122	$ 1,172,122	$ 1,172,122	52%	$ -
Charge to Legacy Fund	92,000	92,000	92,000	92,000	4%	-
Charge to Water Fund	55,000	55,000	163,367	163,367	7%	108,367
Charge to Sewer Fund	60,000	60,000	60,000	60,000	3%	-
Charge to Electric Fund	155,000	162,500	150,000	162,500	7%	-
Charge to PI Fund	20,000	20,000	20,000	20,000	1%	-
Charge to Drainage Fund	10,000	10,000	10,000	10,000	0%	-
Transfer from Capital Projects	-	-	-	-	0%	-
Interest Income	3,017	-	-	-	0%	-
Grants	-	-	10,000	10,000	0%	10,000
Reserves	-	331,051	580,018	543,208	24%	212,157
Total Revenues	$ 1,567,139	$ 1,902,673	$ 2,257,507	$ 2,233,197	100%	$ 330,524
Total Expenses	$ 1,476,262	$ 2,037,401	$ 2,257,507	$ 2,233,197	99%	$ 195,796
Surplus (Deficit)	**$ 90,877**	**$ (134,728)**	**$ 0**	**$ 0**		

BUILDING/GROUNDS FUND EXPENSES

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Personnel FTE's	15.5	16.5	18.5	18.5		0
Salaries & Wages	$ 668,028	$ 910,803	$ 1,161,468	$ 1,161,468	52%	$ 250,665
Overtime	20,111	15,000	15,000	15,000	0%	-
Employee Benefits	276,620	394,395	422,169	422,169	19%	27,774
Uniforms	2,739	6,000	6,200	6,200	0%	200
Books, Subscriptions, Memberships	-	500	1,700	500	0%	-
Travel & Training	-	2,500	4,500	4,500	0%	2,000
Office Supplies	158	2,000	2,000	2,000	0%	-
Fleet Fund Charges	15,250	22,500	35,867	35,867	2%	13,367
Repairs	214,125	246,600	290,600	290,600	13%	44,000
Utilities	8,806	4,000	4,000	4,000	0%	-
Supplies	100,410	95,000	95,000	95,000	4%	-
IT Fund Charges	5,750	5,750	5,750	7,140	0%	1,390
Risk Mgmt Fund Charges	2,500	2,500	2,500	2,500	0%	-
Equipment Maintenance	64,845	91,700	107,900	107,900	5%	16,200
Bldg Beautification Expenses	8,984	16,500	33,000	16,500	1%	-
Miscellaneous	11,528	20,653	21,853	21,853	1%	1,200
Capital Outlay	-	201,000	48,000	40,000	2%	(161,000)
Depreciation	-	-	-	-	0%	-
Reserves	76,409	-	-	-	0%	-
Total Buildings/Grounds Expenses	**$ 1,476,262**	**$ 2,037,401**	**$ 2,257,507**	**$ 2,233,197**	**99%**	**$ 195,796**

2023 LEHI CITY BUDGET REQUESTS

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FUND	DEPARTMENT	PRIORITY	DESCRIPTION	REQUEST	UNFUNDED	FUNDED
10	ADMIN		**TRAVEL & TRAINING LINE ITEM INCREASE**	5,000		5,000
10	ADMIN	1	**COMMUNICATIONS & PUBLIC OUTREACH MANAGER**	114,701		114,701
10	ADMIN	2	**WEBSITE CHAT & TEXT PLATFORM**	8,000		8,000
10	ADMIN/SPECIAL EVENTS	1	**FULL TIME EVENTS/PROJECTS**	79,284	79,284	
10	ADMIN/SPECIAL EVENTS	1	**FULL TIME EVENTS/PROJECTS - TRUCK & TRAILER**	43,561	43,561	
10	CEMETERY		**CEMETERY MAINTENANCE LINE ITEM INCREASE**	5,000		5,000
10	CEMETERY	1	**CREMATION NICHE WALL**	35,000		35,000
10	CEMETERY	2	**PAVILION REPLACEMENT**	20,000		20,000
10	CEMETERY	3	**NEW SPRINKLER SYSTEM**	10,000		10,000
10	ENGINEERING		**LINE ITEM INCREASES**	2,000		2,000
10	FIRE	2	**TECHNICAL RESCUE EQUIPMENT**	50,000		50,000
10	HUMAN RESOURCES	1	**COMPENSATION ANALYST**	104,191	104,191	
10	HUMAN RESOURCES	1A	**APPRENTICSHIP PROGRAM**	194,325	194,325	
10	HUMAN RESOURCES	2	**HR SYSTEMS INTERN**	27,989	27,989	
10	HUMAN RESOURCES	3	**ONLINE POLICY MANUAL - ONE TIME**	15,000	15,000	
10	HUMAN RESOURCES	3	**ONLINE POLICY MANUAL - ONGOING**	10,000	10,000	
10	HUMAN RESOURCES	4	**TRAINING COORDINATOR**	98,768	98,768	
10	INFORMATION CENTER	1	**FULL-TIME INFORMATION CENTER TECHNICIAN I**	71,519		71,519
10	INFORMATION CENTER	2	**LAPTOP STATIONS**	7,250		7,250
10	INSPECTIONS	1	**INTERNAL ADVANCEMENTS**	12,000		12,000
10	INSPECTIONS	2A	**RESIDENTIAL PLANS EXAMINER**	114,491		114,491
10	INSPECTIONS	2B	**ASSISTANT BUILDING OFFICIAL/PLANS EXAMINER**	111,450		111,450
10	INSPECTIONS	2C	**PERMIT TECHNICIAN I**	86,471		86,471
10	INSPECTIONS	3	**HP DESIGNJET**	12,415		12,415
10	LIBRARY	1	**UPGRADE AUTO CHECK-IN UNITS**	11,048		11,048
10	LIBRARY	2	**EQUIPMENT MAINTENANCE LINE ITEM INCREASE**	8,000		8,000
10	PARKS		**TRAVEL & TRAINING LINE ITEM INCREASE**	5,000		5,000
10	PARKS	1	**ARBORIST GROUNDSMEN WORKER 1/2**	79,600		79,600
10	PARKS	2	**LONG RANGE PARKS PLANNER**	112,455		112,455
10	PARKS	3	**IRRIGATION TECHNICIAN 1/2**	79,600	79,600	
10	PARKS	4	**DEEP TINE AERATOR**	30,000		30,000
10	PARKS	5	**VETS BALLPARK FENCING PROJECT**	35,000		35,000
10	PARKS	6	**UTILITY VEHICLE**	20,000		20,000
10	PARKS	7	**MAINTENANCE WORKER - GARDENER - ONGOING**	79,600	79,600	
10	PARKS	7	**MAINTENANCE WORKER - GARDENER - ONE TIME**	47,360	47,360	
10	PARKS	8	**WILLOW HAVEN PLAYGROUND EQUIPMENT**	80,000	80,000	
10	PARKS	9	**ROOFING PAVILIONS AT SPORTS PARK**	85,000	85,000	
10	PLANNING	1	**PLANNER I**	100,643	100,643	
10	POLICE	1	**PATROL OFFICER - ONGOING**	125,000		125,000
10	POLICE	1	**PATROL OFFICER - ONE TIME**	10,575		10,575
10	POLICE	2	**PATROL OFFICER - ONGOING**	125,000		125,000
10	POLICE	2	**PATROL OFFICER - ONE TIME**	10,575		10,575
10	POLICE	3	**AXON ENTERPRISE INC 2022 OFFICER SAFETY PLAN**	116,054		116,054
10	POLICE	4	**PATROL OFFICER - ONGOING**	125,000	125,000	
10	POLICE	4	**PATROL OFFICER - ONE TIME**	10,575	10,575	
10	POLICE	5	**RECORDS CLERK PART TIME TO FULL TIME**	44,222		44,222
10	SENIOR CENTER		**PROGRAMS LINE ITEM INCREASE**	6,612		6,612

2023 LEHI CITY BUDGET REQUESTS

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FUND	DEPARTMENT	PRIORITY	DESCRIPTION	REQUEST	UNFUNDED	FUNDED
10	SENIOR CENTER	1	**NEW HOBART DISHWASHER**	7,805		7,805
10	STREETS	1	**WEILER PAVER WITH TRAILER**	47,017		47,017
10	STREETS	2	**NEW DUMP BED (S-12)**			
10	STREETS	3	**F-150 PICKUP TRUCK**	13,320	13,320	
10	STREETS	4	**NEW BED AND SANDER (S-20)**			
10	STREETS	5	**SNOW PLOW (S-32)**			
11	CLASS C ROADS		**ROAD CONSTRUCTION PROJECTS**	2,190,000		2,190,000
21	LEGACY CENTER		**MISCELLANEOUS LINE ITEM INCREASES**	46,400		46,400
21	LEGACY CENTER	1	**LEISURE POOL LINER REPLACEMENT**	540,000		540,000
21	LEGACY CENTER	2	**ADDITIONAL COMPUTER STATIONS**	6,175	6,175	
21	LEGACY CENTER	3	**SWIMMING PROGRAM INCREASE**	8,800		8,800
21	LEGACY CENTER	4	**BASKETBALL PROGRAM INCREASE**	15,700		15,700
21	LEGACY CENTER	5	**ADDITIONAL CAMERAS FOR DIGITAL MONITORING SYSTEM**	8,500		8,500
22	OUTDOOR POOL	1	**DIGITAL CAMERA SYSTEM**	27,000		27,000
32	CAPITAL PROJECTS	1	**DRY CREEK LAKE RECREATION AREA**	6,500,000		6,500,000
32	CAPITAL PROJECTS	2	**FAMILY PARK - ALL ABILITIES PLAYGROUND**	2,000,000		2,000,000
			CITY HALL DESIGN PLAN	600,000		
32	CAPITAL PROJECTS		**COURT HOUSE DESIGN PLAN**	300,000		
32	CAPITAL PROJECTS		**CITY HALL CONSTRUCTION**	20,000,000		20,000,000
45	CDBG		**EAST SIDE OF 300 W - 300 NORTH TO 900 NORTH**	277,000		277,000
46	FIRE IMPACT FEES/BOND	1	**STATION 84 BUILDING CONSTRUCTION**	9,400,000		9,400,000
46	FIRE IMPACT FEES/LEASE	1	**STATION 84 ENGINE & EQUIPMENT**	1,143,000		
46	FIRE IMPACT FEES/LEASE	1	**STATION 84 AMBULANCE & EQUIPMENT**	464,000		
46	FIRE IMPACT FEES/LEASE	1	**STATION 84 BRUSH TRUCK & EQUIPMENT**	242,000		
46	FIRE IMPACT FEES	1	**STATION 84 SCBA EQUIPMENT**	630,000		
47	PARK IMPACT FEES		**COLD SPRINGS RANCH PARK**	2,475,145		2,475,145
47	PARK IMPACT FEES		**SHADOW RIDGE PARK**	300,000		300,000
47	PARK IMPACT FEES		**STEVE ROLL ROTARY PARK**	70,000		70,000
51	WATER		**WATER SHARE PURCHASE (RENT) LINE ITEM INCREASE**	472,260		472,260
51	WATER		**SYSTEM MAINTENANCE LINE ITEM INCREASE**	80,000		80,000
51	WATER		**METER ANNUAL MAINTENANCE LINE ITEM INCREASE**	3,000		3,000
51	WATER		**PUBLIC WORKS FACILITY SITE PLAN**	25,000		25,000
51	WATER	1	**WATER OPERATOR I-IV**	94,444		94,444
51	WATER	2	**ELECTRICIAN - ONGOING**	115,535	115,535	
51	WATER	2	**ELECTRICIAN - ONE TIME**	60,000	60,000	
51	WATER	3	**DRY CREEK WELL REHABILITATION**	200,000		200,000
51	WATER (INSPECTIONS)	1	**GIS INTERN**	28,600		28,600
51	WATER (INSPECTIONS)	1	**UPGRADED GIS COMPUTER**	4,500		4,500
71	WATER IMPACT FEES	1	**1200 EAST BOOSTER PUMP STATION**	600,000		600,000
71	WATER IMPACT FEES	2	**WEST SIDE TANK 2**	600,000		600,000
71	WATER IMPACT FEES		**PT WELL & FLIGHT PARK TANK/LINES**	800,000		800,000
71	WATER IMPACT FEES		**FLIGHT PARK WELL & LINES**	2,400,000		2,400,000
52	SEWER	1	**SEWER COMBO TRUCK**	90,771		90,771
52	SEWER	2	**WASTEWATER OPERATOR**	92,045	92,045	
52	SEWER	3	**WASTEWATER OPERATOR**	92,045	92,045	
52	SEWER	4	**PREVENTIVE MAINTENANCE LEAD**	15,000		15,000
53	POWER	1	**BLUE STAKER - ONGOING**	90,387		90,387

2023 LEHI CITY BUDGET REQUESTS

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FUND	DEPARTMENT	PRIORITY	DESCRIPTION	REQUEST	UNFUNDED	FUNDED
53	POWER	1	**BLUE STAKER - ONE TIME**	12,000		12,000
53	POWER	2	**APPRENTICE LINEWORKER - ONGOING**	101,091		101,091
53	POWER	2	**APPRENTICE LINEWORKER - ONE TIME**	6,700		6,700
53	POWER	3	**NEW CAPACITOR BANKS**	71,000		71,000
53	POWER	4	**MAINTENANCE CONTRACT**	200,000		200,000
53	POWER	5	**ADDITIONAL OVERTIME**	96,080		96,080
53	POWER	6	**INCREASED UNIFORM EXPENSE**	19,800		19,800
53	POWER	7	**DEPARTMENT VEHICLE**	11,637	11,637	
53	POWER	8	**SUBSTATION REGULATORS**	300,000		300,000
53	POWER	9	**REBUILD CEDAR HOLLOW RD (600 E TO 940 E)**	250,000		250,000
53	POWER	10	**6-12 CIRCUIT TIE (PIONEER CROSSING TO 700 S)**	130,000		130,000
53	POWER	11	**PART TIME TO FULL TIME ADMIN ASSISTANT**	65,150		65,150
53	POWER	12	**PART TIME TO FULL TIME WAREHOUSE LABORER**	65,150		65,150
53	POWER	13	**GENERATOR TECHNICIAN**	126,362	126,362	
53	POWER	14	**CIS & WORK ORDER SOFTWARE**	150,000	150,000	
53	POWER	14	**CIS & WORK ORDER SOFTWARE - ONGOING COSTS**	15,000	15,000	
53	POWER	15	**INCREASE INTERNAL GENERATOR MAINTENANCE**	44,200		44,200
53	POWER	16	**COPY MACHINE REPLACEMENT**	4,014		4,014
53	POWER	17	**INCREASE DESIGNATED CITY PROJECTS**	150,000		150,000
53	POWER	18	**TRAIL LIGHTING PROJECT**	100,000		100,000
53	POWER	19	**WAREHOUSE RACKING**	15,000		15,000
55	IRRIGATION	1	**IRRIGATION WELL LOW HILLS ZONE**	1,200,000		1,200,000
75	PI IMPACT FEES	1	**RELOCATED 600 EAST WELL**	350,000		350,000
75	PI IMPACT FEES		**FLIGHT PARK RESERVOIR & PIPELINE**	400,000		400,000
75	PI IMPACT FEES		**VIALETTO RESERVOIR & PUMPS**	450,000		450,000
57	DRAINAGE		**TRAVEL & TRAINING LINE ITEM INCREASE**	3,000		3,000
57	DRAINAGE		**PROFESSIONAL & TECHNICAL LINE ITEM INCREASE**	5,000		5,000
78	DRAINAGE/PMT IN LIEU		**JORDAN NARROWS DETENTION BASIN**	50,000		50,000
78	DRAINAGE/PMT IN LIEU		**LAMBERT DETENTION BASIN**	100,000		100,000
63	IT FUND		**SYSTEMS/DATABASE ANALYST**	100,401		100,401
63	IT FUND		**PART TIME IT TECHNICIAN I**	64,240	64,240	
63	IT FUND		**SUPPLIES & MAINTENANCE LINE ITEM INCREASE**	158,000		158,000
63	IT FUND		**PROFESSIONAL & TECHNICAL LINE ITEM INCREASE**	60,000		60,000
63	IT FUND		**SOFTWARE LICENSING LINE ITEM INCREASE**	105,000		105,000
63	IT FUND		**HARDWARE INFRASTRUCTURE REPLACEMENT & SUPPORT**	150,000		150,000
64	FLEET FUND	1	**STREETS VEHICLE REPAIRS**	129,878		129,878
64	FLEET FUND	1	**FLEET REPLACEMENT VEHICLES**	2,144,789	766,789	1,378,000
64	FLEET FUND	1	**FLEET REPLACEMENT VEHICLES (DEPARTMENT REQUESTED)**	3,656,867	3,422,785	234,082
64	FLEET FUND	1	**ON SITE FUEL TANKS**	200,000	200,000	
64	FLEET FUND	1	**FUEL LINE ITEM INCREASE**	140,200		140,200
64	FLEET FUND	1	**OPERATING EXPENSE LINE ITEM INCREASE**	100,000		100,000
64	FLEET FUND	1	**SHOP FOREMAN WAGE INCREASE**	3,120		3,120
64	FLEET FUND	1	**INTERN/APPRENTICE MECHANIC (PART TIME)**	26,000	26,000	
69	BUILDINGS		**TRAVEL & TRAINING LINE ITEM INCREASE**	2,000		2,000
69	BUILDINGS	1	**JOURNEYMAN ELECTRICIAN**	95,200		95,200

2023 LEHI CITY BUDGET REQUESTS

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FUND	DEPARTMENT	PRIORITY	DESCRIPTION	REQUEST	UNFUNDED	FUNDED
69	BUILDINGS	2	**FULL TIME CUSTODIAL WORKER (LEGACY CENTER)**	79,500		79,500
69	BUILDINGS	3	**GENERATOR MAINTENANCE**	16,200		16,200
69	BUILDINGS	4	**MUSEUM DOOR REPLACEMENT**	40,000		40,000
69	BUILDINGS	5	**ENERGY MANAGEMENT SOFTWARE**	9,200	9,200	
69	BUILDINGS	6	**CEMETERY FLAG LIGHTS**	16,500	16,500	
69	BUILDINGS	7	**POOL TRUSS REPAIR**	25,000		25,000
69	BUILDINGS	8	**CARPET IN FACILITIES (WATER DEPT & STATION 82)**	19,000		19,000

57,845,533

LEHI CITY CORPORATION

MAYOR'S RDA FINAL BUDGET FY 2023

EST 1852

LEHI CITY

PIONEERING UTAH'S FUTURE

RDA MILL POND SUMMARY

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Property taxes	$ 487,501	$ 335,000	$ -	$ -	0%	(335,000)
Miscellaneous Revenue	-	-	-	-	0%	-
Reappropriation of Fund Balance	-	1,157,500	1,992,500	1,992,500	100%	835,000
Interest Income	10,198	7,500	7,500	7,500	0%	-
Total Revenues	$ 497,699	$ 1,500,000	$ 2,000,000	$ 2,000,000	100%	500,000
Expenses						
Millpond RDA engineering	$ -	$ -	$ -	$ -	0%	-
Millpond RDA streets	-	-	-	-	0%	-
Millpond RDA water	1,145	300,000	400,000	400,000	20%	100,000
Road/Pedestrian w/bridge to Meadows	-	1,200,000	1,300,000	1,300,000	65%	100,000
Millpond RDA Properties	-	-	300,000	300,000	15%	300,000
Reserves	-	-	-	-	0%	-
Total Expenses	$ 1,145	$ 1,500,000	$ 2,000,000	$ 2,000,000	100%	500,000
Surplus(Deficit)	**$ 496,554**	**$ -**	**$ -**	**$ -**		

TI RDA (MICRON)

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Property Taxes	$ 9,603,476	$ 13,000,000	$ 13,000,000	$ 13,000,000	100%	$ -
Total Revenues	$ 9,603,476	$ 13,000,000	$ 13,000,000	$ 13,000,000	100%	$ -
Expenses						
Texas Instruments	$ 6,722,433	$ 9,100,000	$ 9,100,000	$ 9,100,000	70%	$ -
Lehi City	1,273,421	1,723,800	1,723,800	1,723,800	13%	-
Alpine School District	1,273,421	1,723,800	1,723,800	1,723,800	13%	-
Utah County	221,840	300,300	300,300	300,300	2%	-
TSSD	112,361	152,100	152,100	152,100	1%	-
Total Expenses	$ 9,603,476	$ 13,000,000	$ 13,000,000	$ 13,000,000	100%	$ -
Surplus(Deficit)	**$ 0**	**$ -**	**$ -**	**$ -**		

CDA XACTWARE

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Property taxes	$ 336,158	$ 325,000	$ 325,000	$ 325,000	100%	$ -
Note proceeds	-	-	-	-	0%	-
Total Revenues	$ 336,158	$ 325,000	$ 325,000	$ 325,000	100%	$ -
Expenses						
EDA costs	$ -	$ -	$ -	$ -	0%	$ -
Taxing entities	326,073	315,250	315,250	315,250	97%	-
Administration	10,085	9,750	9,750	9,750	3%	-
Redevelopment expenditures	-	-	-	-	0%	-
Total Expenses	$ 336,158	$ 325,000	$ 325,000	$ 325,000	100%	$ -
Surplus(Deficit)	**$ -**	**$ -**	**$ -**	**$ -**		

EDA THANKSGIVING PARK

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Property taxes	$ 235,458	$ 300,000	$ 300,000	$ 300,000	100%	$ -
Interest Income	-	-	-	-	0%	-
Total Revenues	$ 235,458	$ 300,000	$ 300,000	$ 300,000	100%	$ -
Expenses						
EDA Administration Charges	$ 11,773	$ 15,000	$ 15,000	$ 15,000	5%	$ -
Thanksgiving Park	223,685	285,000	285,000	285,000	95%	-
Total Expenses	$ 235,458	$ 300,000	$ 300,000	$ 300,000	100%	$ -
Surplus(Deficit)	**$ -**	**$ -**	**$ -**	**$ -**		

EDA ADOBE

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Property taxes	$ 905,546	$ 675,000	$ 675,000	$ 675,000	100%	$ -
Total Revenues	$ 905,546	$ 675,000	$ 675,000	$ 675,000	100%	$ -
Expenses						
EDA costs	$ -	$ -	$ -	$ -	0%	$ -
Taxing entities	845,146	629,978	629,978	629,978	93%	-
Administration	60,400	45,022	45,022	45,022	7%	-
Redevelopment expenditures	-	-	-	-	0%	-
Total Expenses	$ 905,546	$ 675,000	$ 675,000	$ 675,000	100%	$ -
Surplus(Deficit)	**$ -**	**$ -**	**$ -**	**$ -**		

CDA OUTLETS AT TRAVERSE MOUNTAIN

ACCOUNT DESCRIPTION	ACTUAL FY 2021	ESTIMATED BUDGET FY 2022	DEPT REQ BUDGET FY 2023	FINAL BUDGET FY 2023	PERCENT OF TOTAL BUDGET	INCREASE (DECREASE) FY2022-FY2023
Revenues						
Sales Tax	$ 108,866	$ 820,000	$ 820,000	$ 820,000	69%	$ -
Property Taxes	195,178	375,000	375,000	375,000	31%	-
Total Revenues	$ 304,044	$ 1,195,000	$ 1,195,000	$ 1,195,000	100%	$ -
Expenses						
Sales tax reimbursement	$ -	$ 820,000	$ 820,000	$ 820,000	69%	$ -
Property tax reimbursement	-	375,000	375,000	375,000	31%	-
Total Expenses	$ -	$ 1,195,000	$ 1,195,000	$ 1,195,000	100%	$ -
Surplus(Deficit)	**$ 304,044**	**$ -**	**$ -**	**$ -**		

Agenda Item No: 5

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Teisha WIlson
Submitting Department:
Item Type: Resolution
Agenda Section: Regular Agenda

Subject:
Consideration of Resolution #2022-73, approving an agreement between Lehi City and Hydro Vac Excavation for the installation of pressurized irrigation meters.

Suggested Action:

Attachments:

Res 2022-73.docx

Hydro Vac Agreement.pdf

RESOLUTION NO. 2022-72

A RESOLUTION OF THE LEHI CITY COUNCIL APPROVING AN AGREEMENT BETWEEN LEHI CITY AND HYDRO VAC EXCAVATION LLC FOR THE INSTALLATION OF PRESSURIZED IRRIGATION METERS

WHEREAS, Lehi City ("City") needs to provide for the installation of up to 2,000 pressurized irrigation meters;

WHEREAS, Lehi City issued an RFP to solicit proposals and Hydro Vac Excavation LLC's proposal was selected to be awarded the project;

WHEREAS, on August 23, 2022, the City Council held a duly noticed public meeting to ascertain the facts regarding this matter, which facts and comments are found in the meeting record; and

WHEREAS, after considering the facts and comments presented to the City Council, the Council finds: (i) that it should approve the Agreement with Hydro Vac Excavation LLC; and (ii) such action furthers the health, safety and welfare of the citizens of Lehi.

NOW, THEREFORE, be it resolved by the City Council of Lehi City, Utah, as follows:

1. The Agreement attached hereto as Exhibit "A" are hereby approved and the Mayor is authorized to execute the agreements and take all other such action as is necessary to make them effective.

2. This resolution shall take effect immediately.

Approved and Adopted by the City Council of Lehi City, Utah this 23rd day of August, 2022.

LEHI CITY	ATTEST
_____	_____
Mark Johnson, Mayor	Teisha Wilson, City Recorder

Exhibit “A”

AGREEMENT FOR THE INSTALLATION OF PRESSURIZED IRRIGATION METERS

THIS AGREEMENT FOR THE INSTALLATION OF PRESSURIZED IRRIGATION METERS ("Agreement") is made and entered into and effective as of the date the last party signs below ("Effective Date") by and between Lehi City, 153 North 100 East, Lehi, Utah 84043 ("City") and Hydro Vac Excavation, LLC, 1193 North 2300 West, Lehi, Utah, 84043 ("Contractor").

WHEREAS, City desires to contract for the installation of up to 2,000 pressurized irrigation meters (the "Work"); and

WHEREAS, City issued RFP 2022-14 and Contractor submitted a Response to RFP 2022-14 which City determined to be the lowest responsive and most responsible proposal and the City desires to contract with Contractor to perform the Work;

NOW, THEREFORE, in consideration of the premises, the covenants and conditions set forth in this Agreement, and in further consideration of the execution of this Agreement and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, City and Contractor agree as follows:

1. **Scope of Work**. City hereby hires Contractor and Contractor agrees to be bound to the City to perform the Work as described in RFP 2022-14 and Contractor's Response to RFP 2022-14 dated August 4, 2022, both attached hereto as Exhibit A, and referred to as the "Contract Documents" and by this reference are incorporated herein and made a part of this Agreement.

2. **Term**. The Work shall commence on the Effective Date and shall be completed no later than October 1, 2023. Upon the completion of the Work, the City may, at its sole discretion, extend the term of this Agreement for up to two additional one-year periods. If Contractor cannot provide the Work at the same prices as those identified in Contractor's Bid Tab, attached hereto and incorporated into this Agreement as Exhibit B, plus a reasonable price escalator justified by cost factors outside of Contractor's control, Contractor may decline the extension of the term and City shall issue a new RFP.

3. **Payment**. City shall pay Contractor in accordance with the prices identified on Exhibit B.

4. **Changes in Performance**. All changes in performance of this Agreement shall be described in detail on a change order request form, provided by the City, and which must be authorized in writing by an authorized representative of the City prior to commencing any proposed changes in performance. Contractor shall not be entitled to any additional consideration for changes in performance which were not authorized as contemplated by this section, nor for the correction of any mistakes attributable in any way to Contractor, or its employees, agents, subcontractors, independent contractors,

and the like.

5. **Withholding Payment for Defective Performance**. The City may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any of the Payment to the extent that the City reasonably determines such withholding is necessary to protect itself from loss or liability on the account of defective or incomplete performance by Contractor, including but not limited to defective goods or services not remedied, or any other failure to comply with the terms and conditions of this Agreement.

6. **Termination**. The City may terminate this Agreement at any time if, in the sole discretion of the City, Contractor's performance under this Agreement is unsatisfactory, Contractor fails to perform its duties and obligations required by this Agreement with diligence or within the time specified herein, or Contractor has otherwise materially breached this Agreement.

   6.1 Before terminating this Agreement if Contractor's performance is unsatisfactory, the City shall first provide written notice to Contractor of the City's intention to terminate this Agreement. The notice of termination must be provided by City to Contractor at least seven (7) calendar days prior to termination. After receiving such notice of termination from City, Contractor shall have the next five (5) working days in which to cure any deficiency noted by the City. If Contractor adequately cures any such deficiency to the sole satisfaction of the City, this Agreement shall continue. However, in the event Contractor fails to adequately cure any such deficiency, this Agreement shall terminate and Contractor shall be liable for any resulting damages associated with the deficiency and breach of this Agreement. The City may pursue any such damages through all available means, whether in law or in equity, or both.

   6.2 The City may, in its sole discretion, terminate, suspend, or abandon this Agreement without cause at any time by providing written notice to Contractor of the City's intention to terminate this Agreement without cause. The notice of termination shall be provided by the City to Contractor at least seven (7) calendar days prior to termination.

   6.3 Any Work which Contractor has completed or performed prior to the date of any termination, suspension, or abandonment shall be recorded and tangible work documents shall be transferred to, and become the sole property of, the City. If the City has terminated this Agreement without cause, then subsequently requests Contractor to recommence its performance of the Work after more than three (3) months from the date of termination, the consideration payment amount shall be subject to renegotiation at the request of either party hereto.

   If City terminates this Agreement without cause, Contractor shall be paid a pro

rata portion of the Payment for the reasonable value of the Work that Contractor has completed or performed prior to the date of termination.

6.4 If the Lehi City Council decides not to appropriate a sufficient amount of resources to fund the consideration payment, this Agreement shall be void and of no further force or effect. In the event of such non-appropriation of resources, the City shall be relieved of all of its obligations contemplated by this Agreement, including but not limited to the Payment. In the event of such non-appropriation of resources, Contractor shall be entitled to payment for all services performed prior to being notified of the non-appropriation event.

7. **Taxes**.

7.1 Each party shall be solely responsible for any tax liability which it may incur as a result of this Agreement.

8. **Indemnification and Insurance**.

8.1 Contractor shall be solely responsible for any damage or injury which it, or its employees, agents, subcontractors, independent contractors, and the like may cause in the performance of this Agreement. Consequently, to the fullest extent permitted by law, Contractor shall indemnify, defend, and hold harmless the City, any subsidiary or affiliate of the City, and its past, present and future agents, representatives, and employees from and against all claims, damages, lawsuits, losses, liabilities, liens, cost, citations, penalties, fines and expenses, including but not limited to attorneys' fees, arising out of or resulting from Contractor's performance of this Agreement, provided that such claims, damages, losses, liabilities, liens, costs, citations, penalties, fines, and expenses are caused in whole or in part by any negligent, grossly negligent, reckless, or intentional act or omission attributable in any way to Contractor, or its employees, agents, subcontractors, independent contractors, and the like, or anyone directly or indirectly employed by Contractor or any subcontractor, or any party for whose acts Contractor may be liable, regardless of whether liability is imposed upon such party. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity, which may otherwise exist in favor of the City. In any and all claims against the City, or any subsidiary or affiliate, or any of its past, present or future agents, representatives, or employees, by Contractor, or its current or former employees, agents, subcontractors, independent contractors, and the like, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this paragraph shall not be limited in any way by the amount or types of damages, compensations, or benefits payable by or for Contractor, or any subcontractor, worker's compensation acts, disability benefit acts, or other employee benefit acts.

8.2 Contractor, at its own expense, shall provide for the payment of workers' compensation benefits to its employees employed on or in connection with the performance of this Agreement, and in accordance with applicable State and Federal laws.

8.3 Contractor, at its own expense, shall maintain comprehensive general liability insurance in amounts including $3,000,000 per occurrence.

8.4 Contractor, at its own expense, shall maintain automobile public liability insurance with bodily injury and death limits of at least $250,000 for any one person, and $500,000 for any one occurrence, and a property damage limit per occurrence of $250,000. Such benefits and coverage shall not be deemed to limit Contractor's liability under this Agreement. It is intended by this Section that the requirements set forth herein will satisfy applicable minimum requirements under Utah law. However, in the event that the foregoing requirements do not satisfy applicable Utah law, Contractor must maintain automobile public liability insurance in amounts satisfying applicable Utah law.

8.5 Contractor, at its own expense, shall maintain professional liability/errors and omissions insurance appropriate to Contractor's profession, with a limit of $3,000,000.00 per occurrence. The professional liability/errors and omissions insurance required by this Section 8.5 must be project specific with a one-year extended reporting period. Contractor shall, likewise, require its subcontractors, if any, to provide for such benefits and to maintain such insurance at no expense to the City.

8.6 Before commencing the Work, and at any time thereafter upon written request by the City, Contractor shall furnish the City with a copy of certificates of insurance as evidence that policies providing the coverage required by this Agreement are in effect.

8.7 All insurance required by this Agreement, with the exception of worker's compensation and employer's liability policies, shall include the City, its directors, officers, agents, and employees as additional insured persons with respect to the activities of Contractor in the performance of this Agreement, or that of its employees, agents, subcontractors, independent contractors, and the like. Any certificate presented as evidence of insurance shall specify the date when such benefits and insurance expire. Unless a different length of time is expressly set forth in this Agreement, Contractor shall maintain any insurance required by this Agreement until after the Work has been fully performed by Contractor, and subsequently approved and accepted by the City. Contractor shall provide the City with written notice at least sixty (60) days in advance of any cancellation, termination, or material alteration of said policies of insurance.

9. **Performance and Warranty Bonds or Letters of Credit.**

9.1 Prior to commencing work on the Work, Contractor must provide the City with a performance bond and payment bond in the amount of the Payment. The completed performance bond and payments bond are attached hereto as Exhibit B. In the event that Contractor fails to provide a performance bond and payment bond within 10 days of the Effective Date, this Agreement shall be void.

9.2 The purpose of the performance bond and payment bond is to guarantee the proper completion by Contractor of the Work as contemplated by this Agreement and payment to subcontractors.

9.3 The performance bond and payment bond shall remain valid until the City approves of and accepts the Work, as set forth in Section 9.4.

9.4 Prior to the City's approval and acceptance of the Work, Contractor must provide the City with a one-year ("Warranty Period") warranty bond in the amount of 10% of the Payment. The completed warranty bond is attached as Exhibit C.

9.4.1 The purposes of the warranty bond is to guarantee that the Work:

(A) complies with this Agreement; and

(B) will not fail in any material respect as a result of poor workmanship or materials within the Warranty Period.

9.5 The warranty bond shall remain valid for the entire Warranty Period.

9.6 Approval and acceptance of the Work shall be deemed to have occurred when each of the following events have been satisfied:

(A) Contractor provides written notice to the City that Contractor considers the Work to be complete.

(B) The City provides written approval and acceptance of the Work, or fails to provide a written response to Contractor, within thirty (30) days after receiving the notification contemplated by Section 9.6(A), indicating the additional work which the City considers incomplete pursuant to this Agreement.

10. **Representations and Warranties.**

10.1 Each party represents that:

10.1.1. Its signatory has the authority to the party to this Agreement.

10.1.2 It has not sold, assigned, or otherwise transferred any interest in the claims or subject matter contemplated by this Agreement.

10.2 Contractor represents and warrants that:

10.2.1. Contractor has sufficiently and reasonably researched the requirements of this Agreement, understands the same, and is able to competently perform each of its duties and obligations required hereunder.

10.2.2. Contractor warrants the workmanship, materials, proper functioning, and manner of the Work contemplated by this Agreement for the entire Warranty Period. In the event that any portion of the Work does not remain in good and operating condition (in the sole judgment of the City) during the Warranty Period (ordinary wear and tear excepted), Contractor, at its own expense, shall immediately perform all necessary repairs and replacements to maintain such inadequate Work in good and operating condition (to the City's sole satisfaction). Should any portion of the Work imminently jeopardize the health and safety of the City, or any other individual, the City may perform any necessary repairs and replacements (or arrange for a third party to perform such services) at Contractor's expense – to be paid by Contractor within thirty (30) days of receiving a notice of indebtedness from the City.

10.2.3. Contractor shall perform its obligations required by this Agreement in a manner consistent with applicable professional and technical standards for Work of a similar and comparable nature, and shall ensure that the implementation thereof is also performed in an applicable professional, technical, and workman-like manner. Contractor shall correct any defect in its performance at no additional cost to the City. Upon request by the City, Contractor must be able to summarize and concisely report pertinent information associated with this Agreement and the performance thereof to the City in a timely manner. Contractor shall not make any alterations or variations in or additions to, or omissions from, its duties and obligations contemplated by this Agreement, without the prior written consent of the City

10.3 Contractor's licensure or authority to transact business issued by the Utah Division of Corporations and Commercial Code and the Utah Division of Occupational and Professional Licensing, as well as any other required licensure, is currently active, and shall remain active throughout the performance of this Agreement.

11. **Confidentiality.** The parties acknowledge that this Agreement may be subject to public disclosure pursuant to the Government Records Access and Management Act, UTAH CODE ANN. § 63G-2-101, *et seq.*, as the same may be amended from time to time.

Notwithstanding the above, Contractor agrees that, except as directed by the City, Contractor shall not at any time during or after the term of this Agreement disclose to any person or entity any information or document provided by the City which the City has designated as "confidential" or "private." Upon the conclusion or termination of this Agreement, Contractor shall turn over to the City all documents, papers, and other matter, including copies thereof, which are in Contractor's possession or control, and which are designated "confidential" or "private." Contractor further agrees to bind its employees and any sub-contractors to the terms and conditions of this Section 11.

12. **Authority**. Each individual signing this Agreement warrants and represents that he or she has been authorized by appropriate action of the party which he or she represents and has authority to enter into this Agreement on behalf of the party.

13. **Notice.**

13.1 If any notice is required to be provided pursuant to the terms and conditions of this Agreement, said notice must be provided as follows:

To the City:	To Contractor:
Lehi City Corporation	Hydro Vac Excavation, LLC
Attn: Greg Allred	Attn: Jeromy Nielson
2538 North 300 West	1193 North 2300 West
Lehi, Utah 84043	Lehi, Utah 84043

13.2 If notice is sent via regular mail, commercial courier, and the like, receipt thereof shall be presumed on the third Calendar Day thereafter.

14. **Attorneys' Fees and Costs**. Each party shall bear its own attorneys' fees and costs incurred in connection with the drafting, execution, and performance of this Agreement. However, if any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing party in such action shall be entitled to recover reasonable attorneys' fees, legal costs, and other collection fees and costs incurred by the prevailing party in connection with the suit, both before and after the judgment, in addition to any other relief to which such party may be entitled.

15. **Non-Waiver**. No failure to exercise and no delay in exercising any right, remedy, or power under this Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any right, remedy, or power under this Agreement preclude any other or further exercise thereof, or the exercise of any other right, remedy or power

provided herein or by law or in equity.

16. **Binding Effect**. This Agreement is binding upon the parties and their proper and allowable heirs, legatees, representatives, successors, and assignees.

17. **Assignment**. Neither party may assign this Agreement nor delegate any responsibilities under this Agreement without prior written consent. Any purported assignment or delegation in violation of this Section without prior written consent from the non-assigning party, shall be void and will be considered a material breach of this Agreement.

18. **Amendments**. This Agreement may not be modified, amended, or terminated, except by an instrument in writing.

19. **Time**. Time is of the essence with this Agreement, as well as every term, covenant, and condition contained herein.

20. **Force Majeure**. Neither party shall be liable for any failure or delay in performing an obligation under this Agreement that is due to causes beyond its reasonable control, such as natural catastrophes, governmental acts or omissions, laws or regulations, labor strikes or difficulties, pandemics, transportation stoppages or slowdowns or the inability to procure parts or materials. If any of these causes continue to prevent or delay performance for more than 180 days, the non-delaying party may terminate this Agreement, effective immediately upon notice to the delaying party.

21. **Severability**. If any provision of this Agreement is determined to be invalid or unenforceable, the remaining provisions of this Agreement shall, nevertheless, be construed, performed, and enforced as if the invalidated or unenforceable provision had not been included in the text of the Agreement.

22. **Governing Law**. This Agreement shall be construed in accordance with the laws of the State of Utah.

23. **Entire Agreement**. All agreements, covenants, representations and warranties, express or implied, oral or written, of the parties concerning the subject matter hereof are contained solely in this Agreement, subject to any implied warranties and conditions imposed upon the parties by Utah law. No other agreements, covenants, representations, or warranties have been made by any party to any other party concerning the subject matter hereof. All prior and contemporaneous conversations, negotiations, possible and alleged agreements, representations, covenants, and warranties concerning the subject matter hereof are merged herein. This is an integrated agreement.

[*signature page follows*]

Dated the 18 day of August, 2022.

Hydro Vac Excavation, LLC.

By: Jeromy Nielson
Its: Manager

STATE OF UTAH)
: ss.
COUNTY OF UTAH)

On this 18 day of August, 2022, personally appeared before me Jeromy Nielson, whose identity is personally known to me (or proven on the basis of satisfactory evidence) and who by me duly sworn/affirmed, did say that he/she is the Manager of Hydro Vac Excavation, LLC and that said document was signed by him/her in behalf of said Limited Liability Company by Authority of its Articles of Organization, Operating Agreement, or Resolution of its Members/Managers and said Jeromy Nielson acknowledged to me that said Company executed the same.

Witness my hand and official seal.

DOUGLAS BLANCHARD
NOTARY PUBLIC-STATE OF UTAH
COMMISSION# 719402
COMM. EXP. 07-29-2025

(notary signature)

Dated the 18 day of August, 2022.

Lehi City Corporation

Mayor Mark Johnson

Attest:

Teisha, Wilson, City Recorder

Agenda Item No: 6

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Teisha WIlson
Submitting Department:
Item Type: Ordinance
Agenda Section: Regular Agenda

Subject:
Consideration of Ordinance #41-2022, amending Title 9 Chapter 2 Article B Section 15, for the installation of secondary water meters.

Suggested Action:

Attachments:

Ord 41-2022.docx

Exhibit to 9-2B-15 Amendment.docx

ORDINANCE NO. 41-2022

AN ORDINANCE AMENDING TITLE 9 CHAPTER 2 ARTICLE B SECTION 15
(WATER METERS)

WHEREAS, Lehi City Code Article 9-2B-15 sets forth regulations governing water meters for secondary water connections;

WHEREAS, Lehi City desires to explicitly require the installation of water meters at each secondary water connection;

WHEREAS, on August 23, 2022, the City Council held a duly noticed public meeting to ascertain the facts regarding this matter, which facts and comments are found in the meeting record; and,

WHEREAS, after considering the facts and comments presented to the City Council, the Council finds: (i) Section 9-2B-15 should be amended; and (ii) such action furthers the health, safety and welfare of the citizens of Lehi.

NOW, THEREFORE, be it ordained by the City Council of Lehi City:

PART I:

A. Section 9-2B-15 is hereby amended as shown on Exhibit "A".

PART II:

A. If a provision of this Ordinance No. 41-2022 conflicts with a provision of a previously adopted ordinance concerning the same title, chapter, and/or section number amended herein, the provision in this Ordinance shall prevail.

B. This ordinance and its various section, clauses, and paragraphs are hereby declared to be severable. If any part, sentence, clause, or phrase is adjudged to be unconstitutional or invalid, the remainder shall not be affected thereby.

C. The City Council hereby directs that the official copy of the Lehi City Code be updated to reflect the provisions enacted by this Ordinance.

D. This Ordinance shall take effect immediately after being posted or published as required by law.

Approved and Adopted by the City Council of Lehi City, Utah this 23rd day of August, 2022.

LEHI CITY	ATTEST
_____	_____
Mark Johnson, Mayor	Teisha Wilson, City Recorder

EXHIBIT “A”

9-2B-15: WATER METERS:

Water meters shall ~~not~~ be installed at each secondary water connection and~~; provided, however, that~~ the city council may ~~determine that it is necessary to monitor water use through any secondary water connection or combination of secondary water connections, and may require installation of water meters at the owner's expense, and~~ establish rates based upon water usage. (1984 Code § 13.10.220; amd. 2015 Code)

Agenda Item No: 7

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Teisha WIlson
Submitting Department:
Item Type: Ordinance
Agenda Section: Regular Agenda

Subject:
Consideration of Ordinance #2022-42, amending Title 9 Chapter 2 Article A Section 5, to explicitly limit the use of secondary water for outdoor watering use only.

Suggested Action:

Attachments:

Ord 42-2022.docx

Exhibit to 9-2A-5 Amendment.docx

ORDINANCE NO. 42-2022

AN ORDINANCE AMENDING TITLE 9 CHAPTER 2 ARTICLE A SECTION 5
(SECONDARY WATER SYSTEM FOR OUTDOOR USE)

WHEREAS, Lehi City Code Article 9-2A sets forth regulations administering Lehi City's water system;

WHEREAS, Lehi City desires to explicitly limit the use of secondary water for outdoor watering use only;

WHEREAS, on August 23, 2022, the City Council held a duly noticed public meeting to ascertain the facts regarding this matter, which facts and comments are found in the meeting record; and,

WHEREAS, after considering the facts and comments presented to the City Council, the Council finds: (i) Section 9-2A-5 should be amended; and (ii) such action furthers the health, safety and welfare of the citizens of Lehi.

NOW, THEREFORE, be it ordained by the City Council of Lehi City:

PART I:

A. Section 9-2A-5 is hereby amended as shown on Exhibit "A".

PART II:

A. If a provision of this Ordinance No. 42-2022 conflicts with a provision of a previously adopted ordinance concerning the same title, chapter, and/or section number amended herein, the provision in this Ordinance shall prevail.

B. This ordinance and its various section, clauses, and paragraphs are hereby declared to be severable. If any part, sentence, clause, or phrase is adjudged to be unconstitutional or invalid, the remainder shall not be affected thereby.

C. The City Council hereby directs that the official copy of the Lehi City Code be updated to reflect the provisions enacted by this Ordinance.

D. This Ordinance shall take effect immediately after being posted or published as required by law.

Approved and Adopted by the City Council of Lehi City, Utah this 23rd day of August, 2022.

LEHI CITY	ATTEST
_____	_____
Mark Johnson, Mayor	Teisha Wilson, City Recorder

EXHIBIT “A”

9-2A-5: SECONDARY WATER SYSTEM FOR OUTDOOR USE:

If there is a secondary water main in the street adjacent, or within close proximity, the city culinary water shall not be used for outside uses such as lawn watering, washing driveways, watering gardens, etc. Limited use for car washing, animal watering, watering small plants, etc., will be permitted. (1984 Code § 13.08.080)

Secondary water shall be used for outdoor watering only, use of secondary water for any indoor use is prohibited.

Agenda Item No: 8

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Teisha WIlson
Submitting Department:
Item Type: Resolution
Agenda Section: Regular Agenda

Subject:
Consideration of Resolution #2022-74, approving an agreement between Lehi City and SIRQ Construction for pre-construction and construction management/general contractor services for Station 84.

Suggested Action:

Attachments:

Res 2022-74.docx

Agreement-Station 84 Pre-Construction and Construction Management Services (SIRQ).docx

RESOLUTION NO. 2022-74

A RESOLUTION OF THE LEHI CITY COUNCIL APPROVING AN AGREEMENT BETWEEN LEHI CITY AND SIRQ CONSTRUCTION INC FOR PRE-CONSTRUCTION AND CONSTRUCTION MANAGEMENT/GENERAL CONTRACTOR SERVICES FOR STATION 84

WHEREAS, Lehi City ("City") desires to design and build a new fire station, Station 84;

WHEREAS, Lehi City needs pre-construction and construction management/general contractor services for Station 84 and issued an RFP to solicit proposals;

WHEREAS, SIRQ Construction Inc. submitted a proposal and was selected to be awarded the project;

WHEREAS, on August 23, 2022, the City Council held a duly noticed public meeting to ascertain the facts regarding this matter, which facts and comments are found in the meeting record; and

WHEREAS, after considering the facts and comments presented to the City Council, the Council finds: (i) that it should approve the Agreement with SIRQ Construction Inc.; and (ii) such action furthers the health, safety and welfare of the citizens of Lehi.

NOW, THEREFORE, be it resolved by the City Council of Lehi City, Utah, as follows:

1. The Agreement attached hereto as Exhibit "A" are hereby approved and the Mayor is authorized to execute the agreements and take all other such action as is necessary to make them effective.

2. This resolution shall take effect immediately.

Approved and Adopted by the City Council of Lehi City, Utah this 23rd day of August, 2022.

LEHI CITY	ATTEST
_____	_____
Mark Johnson, Mayor	Teisha Wilson, City Recorder

Exhibit “A”

AGREEMENT FOR FIRE STATION 84 PRE-CONSTRUCTION AND CONSTRUCTION MANAGEMENT/GENERAL CONTRACTOR SERVICES

THIS AGREEMENT is made and entered into this ____ day of September, 2022, and effective as of the date the last party signs below ("Effective Date") between Lehi City Corporation, 153 North 100 East, Lehi, Utah 84043 ("City") and SIRQ Construction Inc. 3900 North Traverse Mountain Blvd, Suite 202 Lehi, Utah 84043 ("Contractor").

WHEREAS, City desires to build a fire station ("Station 84"); and

WHEREAS, City issued Request for Qualifications (RFQ) 2022-12 to identify firms and companies which would best serve the needs of the City to provide pre-construction and construction management/general contractor services for Station 84; and

WHEREAS, Contractor submitted its qualifications to provide such management services and the City desires to contract with them to perform such work as described in the City's RFQ;

NOW, THEREFORE, in consideration of the premises, the covenants and conditions set forth in this Agreement, and in further consideration of the execution of this Agreement and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, City and Contractor agree as follows:

1. Scope of Services. City hereby hires Contractor and Contractor agrees to be bound to the City to perform the Work as described in RFQ No. 2022-12 (including any addendums), and Contractor's response to RFQ No. 2022-12, both of which are attached hereto as Exhibit A, and both of which together with this Agreement are referred to as the "Contract Documents" and by this reference are incorporated herein and made a part hereof.

2. Term. Contractor shall commence the Work immediately upon the Effective Date. The Work shall be completed no later than November 1, 2023.

3. Payment. City shall pay Contractor as follows:

For Preconstruction Services:	$9,970
For General Conditions:	$392,000
For Construction Management Services:	3.9% of the total project cost

4. Changes in Performance. All changes in performance of this Agreement shall be described in detail on a change order request form, provided by the City, and which must be authorized in writing by an authorized representative of the City prior to commencing any proposed changes in performance. Contractor shall not be entitled to any additional consideration for changes in performance which were not authorized as

contemplated by this section, nor for the correction of any mistakes attributable in any way to Contractor, or its employees, agents, subcontractors, independent contractors, and the like.

5. Withholding Payment for Defective Performance. The City may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any of the Payment to the extent that the City reasonably determines such withholding is necessary to protect itself from loss or liability on the account of defective or incomplete performance by Contractor, including but not limited to defective goods or services not remedied, or any other failure to comply with the terms and conditions of this Agreement.

6. Termination and Non-Appropriation. The City may terminate this Agreement at any time if, in the sole discretion of the City, Contractor's performance under this Agreement is unsatisfactory, Contractor fails to perform its duties and obligations required by this Agreement with diligence or within the time specified herein, or Contractor has otherwise materially breached this Agreement.

   6.1 Before terminating this Agreement if Contractor's performance is unsatisfactory, the City shall first provide written notice to Contractor of the City's intention to terminate this Agreement. The notice of termination must be provided by City to Contractor at least seven (7) calendar days prior to termination. After receiving such notice of termination from City, Contractor shall have the next five (5) working days in which to cure any deficiency noted by the City. If Contractor adequately cures any such deficiency to the sole satisfaction of the City, this Agreement shall continue. However, in the event Contractor fails to adequately cure any such deficiency, this Agreement shall terminate and Contractor shall be liable for any resulting damages associated with the deficiency and breach of this Agreement. The City may pursue any such damages through all available means, whether in law or in equity, or both.

   6.2 The City may, in its sole discretion, terminate, suspend, or abandon this Agreement without cause at any time by providing written notice to Contractor of the City's intention to terminate this Agreement without cause. The notice of termination shall be provided by the City to Contractor at least seven (7) calendar days prior to termination.

   6.3 Any Work which Contractor has completed or performed prior to the date of any termination, suspension, or abandonment shall be recorded and tangible or electronic copies of the Deliverables shall be transferred to, and upon payment therefore become the property of, the City in accordance with the work product ownership provisions herein. If the City has terminated this Agreement without cause, then subsequently requests Contractor to recommence its performance of the scope of service after more than three (3) months from the date of

termination, the consideration payment amount shall be subject to renegotiation at the request of either party hereto.

If City terminates this Agreement without cause, Contractor shall immediately cease performing the Work and Contractor shall be entitled to payment for all services performed prior to the date of termination.

6.4 If the Lehi City Council decides not to appropriate a sufficient amount of resources to fund the consideration payment, this Agreement shall be void and of no further force or effect. In the event of such non-appropriation of resources, Contractor shall immediately cease performing the work and shall be entitled to payment for all services performed prior to being notified of the non-appropriation event. In no event shall the amount paid to Contractor exceed the Payment.

7. Taxes.

7.1 Each party shall be solely responsible for any tax liability which it may incur as a result of this Agreement.

8. Indemnification and Insurance.

8.1 Contractor shall be responsible for any damage or injury which it, or its employees, agents, subcontractors, independent contractors, and the like cause in the performance of this Agreement. Consequently, Contractor shall indemnify and hold harmless the City, any subsidiary of the City, and its past, present and future employees from and against all claims, damages, lawsuits, losses, liabilities, liens, cost, citations, penalties, fines and expenses, including but not limited to reasonable attorneys' fees, in each case to the extent caused by the gross negligence, willful misconduct or negligent performance of Contractor, its employees, subcontractors, or anyone for whose acts Contractor is responsible. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity, which may otherwise exist in favor of the City. In any and all claims against the City, or any subsidiary or affiliate, or any of its past, present or future agents, representatives, or employees, by Contractor, or its current or former employees, agents, subcontractors, independent contractors, and the like, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this paragraph shall not be limited in any way by the amount or types of damages, compensations, or benefits payable by or for Contractor, or any subcontractor, worker's compensation acts, disability benefit acts, or other employee benefit acts.

8.2 Contractor, at its own expense, shall provide for the payment of workers' compensation benefits to its employees employed on or in connection with the

performance of this Agreement, and in accordance with applicable State and Federal laws.

8.3 Contractor, at its own expense, shall maintain comprehensive general liability insurance in amounts of $1,000,000 per occurrence and $3,000,000 general aggregate.

8.4 Contractor, at its own expense, shall maintain automobile public liability insurance with bodily injury and death limits of $250,000 for any one person, and $500,000 for any one occurrence, and a property damage limit per occurrence of $250,000. It is intended by this Section that the requirements set forth herein will satisfy applicable minimum requirements under Utah law. However, in the event that the foregoing requirements do not satisfy applicable Utah law, Contractor must maintain automobile public liability insurance in amounts satisfying applicable Utah law.

8.5 Contractor, at its own expense, shall maintain professional liability/errors and omissions insurance appropriate to Contractor's profession, with a limit of $2,000,000.00 per occurrence. The professional liability/errors and omissions insurance required by this Section 8.5 must be project specific with a one-year extended reporting period. Contractor shall, likewise, require its subcontractors, if any, to provide for such benefits and to maintain such insurance at no expense to the City.

8.6 Before commencing the Work, and at any time thereafter upon written request by the City, Contractor shall furnish the City with a copy of certificates of insurance as evidence that policies providing the coverage required by this Agreement are in effect.

8.7 All insurance required by this Agreement, with the exception of worker's compensation and employer's liability and professional liability/errors and omissions policies, shall include the City, its directors, officers, and employees as additional insured persons with respect to the activities of Contractor in the performance of this Agreement, or that of its employees, agents, subcontractors, independent contractors, and the like. Any certificate presented as evidence of insurance shall specify the date when such benefits and insurance expire. Unless a different length of time is expressly set forth in this Agreement, Contractor shall maintain any insurance required by this Agreement until after the Work has been fully performed by Contractor, and subsequently approved and accepted by the City. Contractor shall provide the City with written notice at least thirty (30) days in advance of any cancellation, termination, or material alteration of said policies of insurance or ten (10) days due to nonpayment of premium.

8.8 Neither Contractor nor the City nor either party's suppliers, agents, officers, and

directors shall have any liability regardless of the theory of recovery, including breach of contract or negligence, to the other party or any other person or entity for any indirect, incidental, special, or consequential damages, cost or expense whatsoever, including but not limited to loss of revenue or profit, whether actual or anticipated, loss of use, failure to realize anticipated savings, loss of or damage to data or other commercial or economic loss. This waiver of consequential damages is made regardless that (i) either party has been advised of the possibility of such damages and (ii) that such damages may be foreseeable.

9. Performance and Warranty Bonds or Letters of Credit.

9.1 Prior to commencing work on the Scope of Service, Contractor must provide the City with payment and performance bonds for 100% of the Payment and performance of the Work. The completed payment and performance bonds shall be attached hereto as Exhibit B. In the event that Contractor fails to provide payment and performance bonds within 10 days of the Effective Date, this Agreement shall be void.

9.2 The purpose of the payment and performance bonds is to guarantee the proper completion by Contractor of the Work as contemplated by this Agreement.

9.3 The payment and performance bonds shall remain valid until the City approves of and accepts the Work, as set forth in Section 9.6.

9.4 Prior to the City's approval and acceptance of the Work, Contractor must provide the City with a warranty bond/warranty letter of credit in the amount of 10% of the Payment. The completed warranty bond/warranty letter of credit is attached as Exhibit C.

9.4.1 The purposes of the warranty bond/letter of credit is to guarantee that the Work:

(A) complies with this Agreement; and

(B) will not fail in any material respect as a result of poor workmanship or materials within the Warranty Period.

9.5 The warranty bond/warranty letter of credit shall remain valid for the entire Warranty Period.

9.6 Approval and acceptance of the Work shall be deemed to have occurred when each of the following events have been satisfied:

(A) Contractor provides written notice to the City that Contractor considers the Work to be complete.

(B) The City provides written approval and acceptance of the Work, or fails to provide a written response to Contractor, within thirty (30) days after receiving the notification contemplated by Section 9.6(A), indicating the additional work which the City considers incomplete pursuant to this Agreement.

10. Representations and Warranties.

10.1 Each party represents that:

10.1.1 Its signatory has the authority to the party to this Agreement.

10.1.2 It has not sold, assigned, or otherwise transferred any interest in the claims or subject matter contemplated by this Agreement.

10.2 Contractor represents and warrants that:

10.2.1 Contractor has sufficiently and reasonably researched the requirements of this Agreement, understands the same, and is able to competently perform each of its duties and obligations required hereunder.

10.2.2 Contractor shall perform its obligations required by this Agreement in a manner consistent with generally accepted applicable professional and technical standards for Scope of Service of a similar and comparable nature existing at the time of performance for the locality where the services are performed ("Standard of Care"), and shall ensure that the implementation thereof is also performed in an applicable professional, and technical manner. Provided it receives written notice thereof withing one year of completing the Work, Contractor shall correct any failure to meet this Standard of Care at no additional cost to the City. Upon request by the City, Contractor must be able to summarize and concisely report pertinent information associated with this Agreement and the performance thereof to the City in a timely manner. Contractor shall not make any alterations or variations in or additions to, or omissions from, its duties and obligations contemplated by this Agreement, without the prior written consent of the City.

10.2.3 Contractor's licensure or authority to transact business issued by the Utah Division of Corporations and Commercial Code and the Utah Division of Occupational and Professional Licensing, as well as any other required

licensure, is currently active, and shall remain active throughout the performance of this Agreement.

11. Confidentiality and Work Product Ownership.

11.1 The parties acknowledge that this Agreement may be subject to public disclosure pursuant to the Government Records Access and Management Act, UTAH CODE ANN. § 63G-2-101, *et seq*., as the same may be amended from time to time.

11.2 Notwithstanding Section 11.1 Contractor agrees that, except as directed by the City, Contractor shall not at any time during or after the term of this Agreement disclose to any person or entity any information or document provided by the City which the City has designated as "confidential" or "private. Upon the conclusion or termination of this Agreement, Contractor shall turn over to the City all documents, papers, and other matter, including copies thereof, which are in Contractor's possession or control, and which are designated "confidential" or "private." ." Notwithstanding the foregoing, Contractor may retain a copy of the City's confidential information, subject to the obligations of this Agreement, if Contractor determines such retention is necessary for the sole purpose of documenting the use of such confidential information in the preparation of any work product to which professional liability might attach. Contractor further agrees to bind its employees and any sub-contractors to the terms and conditions of this Section 10.2.

11.3 Any reports, studies, audits, models, tools, code, materials or other work product prepared under this Agreement by Contractor or Contractor's personnel (collectively, "Work Product") shall remain the property of Contractor. Upon receipt of payment by Contractor, the City shall gain ownership of all tangible or electronic versions of any Work Product prepared under this Agreement with the intent of being furnished to, and ultimately delivered to, the City ("Deliverables"). The City shall not gain ownership of any intellectual property of Contractor that was used to create or is otherwise embodied in the Work Product or Deliverables. Contractor shall grant to the City a nonexclusive, perpetual, royalty-free, world-wide, limited license under copyright to use solely for its own benefit, for internal purposes only, and only with its own personnel and without rights to sublicense, such Contractor intellectual property as is necessary for the City to make the agreed use of the Deliverables as contemplated by this Agreement. The City acknowledges that Contractor's Work Product is comprised of instruments of service for use solely with respect to the project for which they were developed or created, and if the City uses such Work Product or Deliverables other than for the purposes for which the Deliverables were prepared, the City shall do so at its own risk and shall indemnify, defend and hold Contractor harmless from any claims or damages arising therefrom.

12. Notice.

12.1 If any notice is required to be provided pursuant to the terms and conditions of this Agreement, said notice must be provided as follows:

To the City:
Lehi City Corporation
Attn: Chief Jeremy Craft
153 North 100 East
Lehi, Utah 84043

To Contractor:
SIRQ
Attn: Joe Reynolds
3900 North Traverse Mountain Blvd
Suite 202
Lehi, Utah 84043

12.2 If notice is sent via regular mail, commercial courier, and the like, receipt thereof shall be presumed on the third Calendar Day thereafter.

12.3 The designation of any address or individual contemplated by this Section 12 may be changed by notice given in the same manner as provided in this Section 12, and shall not be subject to the restrictions contemplated by Section 17.

13. Attorneys' Fees and Costs. Each party shall bear its own attorneys' fees and costs incurred in connection with the drafting, execution, and performance of this Agreement.

14. Non-Waiver. No failure to exercise and no delay in exercising any right, remedy, or power under this Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any right, remedy, or power under this Agreement preclude any other or further exercise thereof, or the exercise of any other right, remedy or power provided herein or by law or in equity.

15. Binding Effect. This Agreement is binding upon the parties and their proper and allowable heirs, legatees, representatives, successors, and assignees.

16. Assignment. Neither party may assign this Agreement nor delegate any responsibilities under this Agreement without prior written consent. Any purported assignment or delegation in violation of this Section without prior written consent from the non-assigning party, shall be void and will be considered a material breach of this Agreement.

17. Amendments. This Agreement may not be modified, amended, or terminated, except by an instrument in writing.

18. Time. Time is of the essence with this Agreement, as well as every term, covenant, and condition contained herein.

19. Force Majeure. Neither party shall be liable for any failure or delay in performing an obligation under this Agreement that is due to causes beyond its reasonable control, such as natural catastrophes, governmental acts or omissions, laws or regulations, labor strikes or difficulties, pandemics, transportation stoppages or slowdowns or the inability to procure parts or materials. If any of these causes continue to prevent or delay performance for more than 180 days, the non-delaying party may terminate this Agreement, effective immediately upon notice to the delaying party.

20. Severability. If any provision of this Agreement is determined to be invalid or unenforceable, the remaining provisions of this Agreement shall, nevertheless, be construed, performed, and enforced as if the invalidated or unenforceable provision had not been included in the text of the Agreement.

21. Governing Law.

21.1 This Agreement shall be construed in accordance with the laws of the State of Utah, regardless of any choice or conflict of law rules.

21.2 Each party agrees that any legal action or proceeding with respect to this Agreement may only be brought in the Fourth District Court of Utah County, in the State of Utah. Consequently, each party hereby submits itself unconditionally to the jurisdiction and venue of the aforementioned courts. Each party hereby waives, and agrees not to assert by way of motion, as a defense, counterclaim, or otherwise, in any action associated with this Agreement that:

21.2.1 Any party hereto it is not personally subject to the jurisdiction of the aforementioned courts for any reason other than the failure to properly serve process.

21.2.2 Any party or its property is exempt or immune from jurisdiction of the aforementioned courts, or from any legal action commenced in said courts (whether before or after judgment).

21.2.3 To the fullest extent allowed by law, that:

21.2.3.1 The action in any such court set forth above is brought in an inconvenient forum.

21.2.3.2 The venue of any such action is improper.

21.2.3.3 This Agreement, or the subject matter hereof, may not be heard by said courts.

21.3 Notwithstanding the foregoing, other Federal, State, and municipal laws, regulations, rules, orders, and ordinances may be applicable to this Agreement.

Contractor shall comply with any such applicable law, including (but not limited to) obtaining any permits required to perform the Scope of Service.

21.4 Any and all disputes, controversies or claims between the parties to this Agreement, not settled within twenty (20) days following written notice of such dispute, shall be referred to senior management of the parties for resolution. In the event that the parties are unable to settle the dispute through senior management negotiations as set forth above, all remaining controversies or claims may then be submitted to mediation upon agreement of both parties. The parties shall share equally the costs and fees of the mediator and each party shall pay its own costs and attorneys' fees incurred in mediation or any subsequent litigation. In the event that the dispute has not been resolved within thirty (30) days following mediation, or such longer period as the parties may agree, either party may initiate formal legal proceedings against the other party.

22. Entire Agreement. All agreements, covenants, representations and warranties, express or implied, oral or written, of the parties concerning the subject matter hereof are contained solely in this Agreement, subject to any implied warranties and conditions imposed upon the parties by Utah law. No other agreements, covenants, representations, or warranties have been made by any party to any other party concerning the subject matter hereof. All prior and contemporaneous conversations, negotiations, possible and alleged agreements, representations, covenants, and warranties concerning the subject matter hereof are merged herein. This is an integrated agreement.

[*signature page follows*]

Dated the _____ day of _____, 2022.

SIRQ Construction, Inc.

_____
By:
Its:

STATE OF UTAH)
: ss.
COUNTY OF UTAH)

On this _____ day of _____, 2022, personally appeared before me _____, whose identity is personally known to me (or proven on the basis of satisfactory evidence) and who by me duly sworn/affirmed, did say that he/she is the _____ of SIRQ Construction Inc. and that said document was signed by him/her in behalf of said Corporation by Authority of its Bylaws, or (Resolution of its Board) and said _____ acknowledged to me that said Corporation executed the same.

Witness my hand and official seal.

_____
(notary signature)

Dated the _____ day of _____, 2022.

Lehi City Corporation

_____
Mayor Mark Johnson

Attest:

_____
Teisha, Wilson, City Recorder

EXHIBIT A – Contract Documents

EXHIBIT B – Payment/Performance Bond

EXHIBIT C – Warranty Bond

Agenda Item No: 9

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Teisha WIlson
Submitting Department:
Item Type: Resolution
Agenda Section: Regular Agenda

Subject:
Consideration of Resolution #2022-75, approving an agreement between Lehi City and Navigate CM & Development for the design and construction of a city center and library.

Suggested Action:

Attachments:

Res 2022-75.docx

Agreement-City Center Design and Construction Management (Navigate).docx

RESOLUTION NO. 2022-75

A RESOLUTION OF THE LEHI CITY COUNCIL APPROVING AN AGREEMENT BETWEEN LEHI CITY AND NAVIGATE CM & DEVELOMENT LLC FOR THE DESIGN AND CONSTRUCTION OF A CITY CENTER AND LIBRARY

WHEREAS, Lehi City ("City") desires to design and build a new City Center and Library;

WHEREAS, Lehi City issued an RFP to solicit proposals and Navigate CM & Development LLC's proposal was selected to be awarded the project;

WHEREAS, on August 23, 2022, the City Council held a duly noticed public meeting to ascertain the facts regarding this matter, which facts and comments are found in the meeting record; and

WHEREAS, after considering the facts and comments presented to the City Council, the Council finds: (i) that it should approve the Agreement with Navigate CM & Development LLC; and (ii) such action furthers the health, safety and welfare of the citizens of Lehi.

NOW, THEREFORE, be it resolved by the City Council of Lehi City, Utah, as follows:

1. The Agreement attached hereto as Exhibit "A" are hereby approved and the Mayor is authorized to execute the agreements and take all other such action as is necessary to make them effective.

2. This resolution shall take effect immediately.

Approved and Adopted by the City Council of Lehi City, Utah this 23rd day of August, 2022.

LEHI CITY	ATTEST
_____	_____
Mark Johnson, Mayor	Teisha Wilson, City Recorder

Exhibit “A”

AGREEMENT FOR MANAGEMENT OF THE DESIGN AND CONSTRUCTION
OF A CITY CENTER AND LIBRARY

THIS AGREEMENT is made and entered into this ____ day of September, 2022, and effective as of the date the last party signs below ("Effective Date") between Lehi City Corporation, 153 North 100 East, Lehi, Utah 84043 ("City") and Navigate CM & Development, LLC, 649 E. South Temple, Salt Lake City, Utah 84102 ("Contractor").

WHEREAS, City desires to design and build a new City Center and Library ("Work"); and

WHEREAS, City issued Request for Qualifications (RFQ) 2022-07 to identify firms and companies which would best serve the needs of the City to manage the design process and construction of the police building; and

WHEREAS, Contractor submitted its qualifications to provide such management and the City desires to contract with them to perform such work as described in the City's RFQ;

NOW, THEREFORE, in consideration of the premises, the covenants and conditions set forth in this Agreement, and in further consideration of the execution of this Agreement and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, City and Contractor agree as follows:

1. Scope of Work. City hereby hires Contractor and Contractor agrees to be bound to the City to perform the Work as described in RFQ No. 2022-07 (including any addendums), and Contractor's response to RFQ No. 2022-07, both of which are attached hereto as Exhibit A, and both of which together with this Agreement are referred to as the "Contract Documents" and by this reference are incorporated herein and made a part hereof. It is contemplated that the Work will be completed in two phases as described in the Contract Documents.

2. Term. Contractor shall commence the Work immediately upon the Effective Date. The Work shall be completed as follows:
    - Phase I shall be complete no later than 6 months from the Effective Date.
    - Phase II shall be complete no later than 31 months from the Effective Date. Phase II shall be limited to Design and Construction Management for the City Center and the Library only.

    Based upon the results of the Phase I and Phase II Work, City, in its sole discretion, may direct Contractor to provide Design and Construction Management services for a new justice court building. If the City so elects, Contractor shall be paid 2.65% of the overall project budget for the justice court building.

3. Payment. As identified on the Cost Structure portion of Contractor's Response to the RFQ, for Phase I of the Work, City shall pay Contractor a not to exceed price of $86,870

dollars and for Phase II, City shall pay Contractor 2% of the overall project budget, together defined as the "Payment" for the Work, which Payment shall not be exceeded without prior written approval as described in this Agreement.

4. Changes in Performance. All changes in performance of this Agreement shall be described in detail on a change order request form, provided by the City, and which must be authorized in writing by an authorized representative of the City prior to commencing any proposed changes in performance. Contractor shall not be entitled to any additional consideration for changes in performance which were not authorized as contemplated by this section, nor for the correction of any mistakes attributable in any way to Contractor, or its employees, agents, subcontractors, independent contractors, and the like.

5. Withholding Payment for Defective Performance. The City may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any of the Payment to the extent that the City reasonably determines such withholding is necessary to protect itself from loss or liability on the account of defective or incomplete performance by Contractor, including but not limited to defective goods or services not remedied, or any other failure to comply with the terms and conditions of this Agreement.

6. Termination and Non-Appropriation. The City may terminate this Agreement at any time if, in the sole discretion of the City, Contractor's performance under this Agreement is unsatisfactory, Contractor fails to perform its duties and obligations required by this Agreement with diligence or within the time specified herein, or Contractor has otherwise materially breached this Agreement.

   6.1 Before terminating this Agreement if Contractor's performance is unsatisfactory, the City shall first provide written notice to Contractor of the City's intention to terminate this Agreement. The notice of termination must be provided by City to Contractor at least seven (7) calendar days prior to termination. After receiving such notice of termination from City, Contractor shall have the next five (5) working days in which to cure any deficiency noted by the City. If Contractor adequately cures any such deficiency to the sole satisfaction of the City, this Agreement shall continue. However, in the event Contractor fails to adequately cure any such deficiency, this Agreement shall terminate and Contractor shall be liable for any resulting damages associated with the deficiency and breach of this Agreement. The City may pursue any such damages through all available means, whether in law or in equity, or both.

   6.2 The City may, in its sole discretion, terminate, suspend, or abandon this Agreement without cause at any time by providing written notice to Contractor of the City's intention to terminate this Agreement without cause. The notice of termination shall be provided by the City to Contractor at least seven (7) calendar

days prior to termination.

6.3 Any Work which Contractor has completed or performed prior to the date of any termination, suspension, or abandonment shall be recorded and tangible or electronic copies of the Deliverables shall be transferred to, and upon payment therefore become the property of, the City in accordance with the work product ownership provisions herein. If the City has terminated this Agreement without cause, then subsequently requests Contractor to recommence its performance of the scope of service after more than three (3) months from the date of termination, the consideration payment amount shall be subject to renegotiation at the request of either party hereto.

If City terminates this Agreement without cause, Contractor shall immediately cease performing the Work and City shall be entitled to payment for all services performed prior to the date of termination.

6.4 If the Lehi City Council decides not to appropriate a sufficient amount of resources to fund the consideration payment, this Agreement shall be void and of no further force or effect. In the event of such non-appropriation of resources, Contractor shall immediately cease performing the work and shall be entitled to payment for all services performed prior to being notified of the non-appropriation event. In no event shall the amount paid to Contractor under this section exceed the Payment.

7. Taxes.

7.1 Each party shall be solely responsible for any tax liability which it may incur as a result of this Agreement.

8. Indemnification and Insurance.

8.1 Contractor shall be responsible for any damage or injury which it, or its employees, agents, subcontractors, independent contractors, and the like cause in the performance of this Agreement. Consequently, Contractor shall indemnify and hold harmless the City, any subsidiary of the City, and its past, present and future employees from and against all claims, damages, lawsuits, losses, liabilities, liens, cost, citations, penalties, fines and expenses, including but not limited to reasonable attorneys' fees, in each case to the extent caused by the gross negligence, willful misconduct or negligent performance of Contractor, its employees, subcontractors, or anyone for whose acts Contractor is responsible. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity, which may otherwise exist in favor of the City. In any and all claims against the City, or any subsidiary or affiliate, or any of its past, present or future agents, representatives, or employees, by Contractor, or its current or former employees, agents, subcontractors, independent

contractors, and the like, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this paragraph shall not be limited in any way by the amount or types of damages, compensations, or benefits payable by or for Contractor, or any subcontractor, worker's compensation acts, disability benefit acts, or other employee benefit acts.

8.2 Contractor, at its own expense, shall provide for the payment of workers' compensation benefits to its employees employed on or in connection with the performance of this Agreement, and in accordance with applicable State and Federal laws.

8.3 Contractor, at its own expense, shall maintain comprehensive general liability insurance in amounts of $1,000,000 per occurrence and $3,000,000 general aggregate.

8.4 Contractor, at its own expense, shall maintain automobile public liability insurance with bodily injury and death limits of $250,000 for any one person, and $500,000 for any one occurrence, and a property damage limit per occurrence of $250,000. It is intended by this Section that the requirements set forth herein will satisfy applicable minimum requirements under Utah law. However, in the event that the foregoing requirements do not satisfy applicable Utah law, Contractor must maintain automobile public liability insurance in amounts satisfying applicable Utah law.

8.5 Contractor, at its own expense, shall maintain professional liability/errors and omissions insurance appropriate to Contractor's profession, with a limit of $3,000,000.00 per occurrence. The professional liability/errors and omissions insurance required by this Section 8.6. must be project specific with a one-year extended reporting period. Contractor shall, likewise, require its subcontractors, if any, to provide for such benefits and to maintain such insurance at no expense to the City.

8.6 Before commencing the Work, and at any time thereafter upon written request by the City, Contractor shall furnish the City with a copy of certificates of insurance as evidence that policies providing the coverage required by this Agreement are in effect.

8.7 All insurance required by this Agreement, with the exception of worker's compensation and employer's liability and professional liability/errors and omissions policies, shall include the City, its directors, officers, and employees as additional insured persons with respect to the activities of Contractor in the performance of this Agreement, or that of its employees, agents, subcontractors, independent contractors, and the like. Any certificate presented as evidence of

insurance shall specify the date when such benefits and insurance expire. Unless a different length of time is expressly set forth in this Agreement, Contractor shall maintain any insurance required by this Agreement until after the Work has been fully performed by Contractor, and subsequently approved and accepted by the City. Contractor shall provide the City with written notice at least thirty (30) days in advance of any cancellation, termination, or material alteration of said policies of insurance or ten (10) days due to nonpayment of premium.

8.8 Neither Contractor nor the City nor either party's suppliers, agents, officers, and directors shall have any liability regardless of the theory of recovery, including breach of contract or negligence, to the other party or any other person or entity for any indirect, incidental, special, or consequential damages, cost or expense whatsoever, including but not limited to loss of revenue or profit, whether actual or anticipated, loss of use, failure to realize anticipated savings, loss of or damage to data or other commercial or economic loss. This waiver of consequential damages is made regardless that (i) either party has been advised of the possibility of such damages and (ii) that such damages may be foreseeable.

9. Performance and Warranty Bonds or Letters of Credit.

9.1 Prior to commencing work on the Scope of Service, Contractor must provide the City with payment and performance bonds for 100% of the Payment and performance of the Work. The completed payment and performance bonds shall be attached hereto as Exhibit E. In the event that Contractor fails to provide payment and performance bonds within 10 days of the Effective Date, this Agreement shall be void.

9.2 The purpose of the payment and performance bonds is to guarantee the proper completion by Contractor of the Work as contemplated by this Agreement.

9.3 The payment and performance bonds shall remain valid until the City approves of and accepts the Work, as set forth in Section 9.6.

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(A) complies with this Agreement; and

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10.1.1 Its signatory has the authority to the party to this Agreement.

10.1.2 It has not sold, assigned, or otherwise transferred any interest in the claims or subject matter contemplated by this Agreement.

10.2 Contractor represents and warrants that:

10.2.1 Contractor has sufficiently and reasonably researched the requirements of this Agreement, understands the same, and is able to competently perform each of its duties and obligations required hereunder.

10.2.2 Contractor shall perform its obligations required by this Agreement in a manner consistent with generally accepted applicable professional and technical standards for Scope of Service of a similar and comparable nature existing at the time of performance for the locality where the services are performed ("Standard of Care"), and shall ensure that the implementation thereof is also performed in an applicable professional, and technical manner. Provided it receives written notice thereof withing one year of completing the Work, Contractor shall correct any failure to meet this Standard of Care at no additional cost to the City. Upon request by the City, Contractor must be able to summarize and concisely report pertinent information associated with this Agreement and the

performance thereof to the City in a timely manner. Contractor shall not make any alterations or variations in or additions to, or omissions from, its duties and obligations contemplated by this Agreement, without the prior written consent of the City.

10.2.3 Contractor's licensure or authority to transact business issued by the Utah Division of Corporations and Commercial Code and the Utah Division of Occupational and Professional Licensing, as well as any other required licensure, is currently active, and shall remain active throughout the performance of this Agreement.

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11.1 The parties acknowledge that this Agreement may be subject to public disclosure pursuant to the Government Records Access and Management Act, UTAH CODE ANN. § 63G-2-101, *et seq*., as the same may be amended from time to time.

11.2 Notwithstanding Section 11.1 Contractor agrees that, except as directed by the City, Contractor shall not at any time during or after the term of this Agreement disclose to any person or entity any information or document provided by the City which the City has designated as "confidential" or "private. Upon the conclusion or termination of this Agreement, Contractor shall turn over to the City all documents, papers, and other matter, including copies thereof, which are in Contractor's possession or control, and which are designated "confidential" or "private." ." Notwithstanding the foregoing, Contractor may retain a copy of the City's confidential information, subject to the obligations of this Agreement, if Contractor determines such retention is necessary for the sole purpose of documenting the use of such confidential information in the preparation of any work product to which professional liability might attach. Contractor further agrees to bind its employees and any sub-contractors to the terms and conditions of this Section 10.2.

11.3 Any reports, studies, audits, models, tools, code, materials or other work product prepared under this Agreement by Contractor or Contractor's personnel (collectively, "Work Product") shall remain the property of Contractor. Upon receipt of payment by Contractor, the City shall gain ownership of all tangible or electronic versions of any Work Product prepared under this Agreement with the intent of being furnished to, and ultimately delivered to, the City ("Deliverables"). The City shall not gain ownership of any intellectual property of Contractor that was used to create or is otherwise embodied in the Work Product or Deliverables. Contractor shall grant to the City a nonexclusive, perpetual, royalty-free, world-wide, limited license under copyright to use solely for its own benefit, for internal purposes only, and only with its own personnel and without rights to sublicense, such Contractor intellectual property as is necessary for the City to make the

agreed use of the Deliverables as contemplated by this Agreement. The City acknowledges that Contractor's Work Product is comprised of instruments of service for use solely with respect to the project for which they were developed or created, and if the City uses such Work Product or Deliverables other than for the purposes for which the Deliverables were prepared, the City shall do so at its own risk and shall indemnify, defend and hold Contractor harmless from any claims or damages arising therefrom.

12. Notice.

12.1 If any notice is required to be provided pursuant to the terms and conditions of this Agreement, said notice must be provided as follows:

To the City:	To Contractor:
Lehi City Corporation	Navigate CM & Development LLC
Attn: Steve Marchbanks	Attn:
153 North 100 East	[address]
Lehi, Utah 84043	[address]

12.2 If notice is sent via regular mail, commercial courier, and the like, receipt thereof shall be presumed on the third Calendar Day thereafter.

12.3 The designation of any address or individual contemplated by this Section 12 may be changed by notice given in the same manner as provided in this Section 12, and shall not be subject to the restrictions contemplated by Section 17.

13. Attorneys' Fees and Costs. Each party shall bear its own attorneys' fees and costs incurred in connection with the drafting, execution, and performance of this Agreement.

14. Non-Waiver. No failure to exercise and no delay in exercising any right, remedy, or power under this Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any right, remedy, or power under this Agreement preclude any other or further exercise thereof, or the exercise of any other right, remedy or power provided herein or by law or in equity.

15. Binding Effect. This Agreement is binding upon the parties and their proper and allowable heirs, legatees, representatives, successors, and assignees.

16. Assignment. Neither party may assign this Agreement nor delegate any responsibilities under this Agreement without prior written consent. Any purported assignment or delegation in violation of this Section without prior written consent from the non-assigning party, shall be void and will be considered a material breach of this Agreement.

17. Amendments. This Agreement may not be modified, amended, or terminated, except by an instrument in writing.

18. Time. Time is of the essence with this Agreement, as well as every term, covenant, and condition contained herein.

19. Force Majeure. Neither party shall be liable for any failure or delay in performing an obligation under this Agreement that is due to causes beyond its reasonable control, such as natural catastrophes, governmental acts or omissions, laws or regulations, labor strikes or difficulties, pandemics, transportation stoppages or slowdowns or the inability to procure parts or materials. If any of these causes continue to prevent or delay performance for more than 180 days, the non-delaying party may terminate this Agreement, effective immediately upon notice to the delaying party.

20. Severability. If any provision of this Agreement is determined to be invalid or unenforceable, the remaining provisions of this Agreement shall, nevertheless, be construed, performed, and enforced as if the invalidated or unenforceable provision had not been included in the text of the Agreement.

21. Governing Law.

21.1 This Agreement shall be construed in accordance with the laws of the State of Utah, regardless of any choice or conflict of law rules.

21.2 Each party agrees that any legal action or proceeding with respect to this Agreement may only be brought in the courts of Utah County, in the State of Utah. Consequently, each party hereby submits itself unconditionally to the jurisdiction and venue of the aforementioned courts. Each party hereby waives, and agrees not to assert by way of motion, as a defense, counterclaim, or otherwise, in any action associated with this Agreement that:

21.2.1 Any party hereto it is not personally subject to the jurisdiction of the aforementioned courts for any reason other than the failure to properly serve process.

21.2.2 Any party or its property is exempt or immune from jurisdiction of the aforementioned courts, or from any legal action commenced in said courts (whether before or after judgment).

21.2.3 To the fullest extent allowed by law, that:

21.2.3.1 The action in any such court set forth above is brought in an inconvenient forum.

21.2.3.2 The venue of any such action is improper.

21.2.3.3 This Agreement, or the subject matter hereof, may not be heard by said courts.

21.3 Notwithstanding the foregoing, other Federal, State, and municipal laws, regulations, rules, orders, and ordinances may be applicable to this Agreement. Contractor shall comply with any such applicable law, including (but not limited to) obtaining any permits required to perform the Scope of Service.

21.4 Any and all disputes, controversies or claims between the parties to this Agreement, not settled within twenty (20) days following written notice of such dispute, shall be referred to senior management of the parties for resolution. In the event that the parties are unable to settle the dispute through senior management negotiations as set forth above, all remaining controversies or claims shall then be submitted to mediation within ten (10) days from written notice by either party to the other of the conclusion of senior management negotiations. Mediation shall follow the Commercial Mediation Rules published by the American Arbitration Association. The parties shall share equally the costs and fees of the mediator and each party shall pay its own costs and attorneys' fees incurred in mediation or any subsequent litigation. This agreement to mediate and any other agreement or consent to mediate entered into in accordance with this Agreement shall be specifically enforceable under the prevailing law of any court having jurisdiction. In the event that the dispute has not been resolved within thirty (30) days following mediation, or such longer period as the parties may agree, either party may initiate formal proceedings against the other party.

22. Entire Agreement. All agreements, covenants, representations and warranties, express or implied, oral or written, of the parties concerning the subject matter hereof are contained solely in this Agreement, subject to any implied warranties and conditions imposed upon the parties by Utah law. No other agreements, covenants, representations, or warranties have been made by any party to any other party concerning the subject matter hereof. All prior and contemporaneous conversations, negotiations, possible and alleged agreements, representations, covenants, and warranties concerning the subject matter hereof are merged herein. This is an integrated agreement.

[*signature page follows*]

Dated the _____ day of _____, 2022.

Navigate CM & Development LLC

_____
By:
Its:

STATE OF UTAH)
: ss.
COUNTY OF UTAH)

On this _____ day of _____, 2022, personally appeared before me _____, whose identity is personally known to me (or proven on the basis of satisfactory evidence) and who by me duly sworn/affirmed, did say that he/she is the _____ Navigate CM & Development LLC and that said document was signed by him/her in behalf of said Limited Liability Company by Authority of its Operating Agreement, or Resolution of its Members/Managers and said _____ acknowledged to me that said Company executed the same.

Witness my hand and official seal.

_____
(notary signature)

Dated the _____ day of _____, 2022.

Lehi City Corporation

_____
Mayor Mark Johnson

Attest:

_____
Teisha, Wilson, City Recorder

EXHIBIT A – Contract Documents

EXHIBIT B – Performance/Payment Bond

EXHIBIT C – Warranty Bond

EXHIBIT D - Technical Specifications for Dry Creek Recreation Area

EXHIBIT E – Performance/Payment/Warranty Bond

Agenda Item No: 10

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Jacob Curtis
Submitting Department: Planning Division
Item Type: Action Item
Agenda Section: Regular Agenda

Subject:
Consideration of Final subdivision approval for the 2100 North Subdivision, a 66-lot residential development located at 2100 North 2300 West.

Suggested Action:

Attachments:

CC Staff Report 2100 North Final Subdivision 08.23.22.docx

2100 North Subdivision- X Development DRC 08.03.22.docx

X Development 2100 N Subdivision 08.03.22.pdf

2100 N Aerial.pdf

2100 N General Plan.pdf

2100 N Zoning.pdf

2100 NORTH FINAL SUBDIVISION

CITY COUNCIL REPORT

Applicant	X Development		
Meeting Date	August 23, 2022		
Requested Action/Purpose	Approval of a final subdivision		
Location	2100 North 2300 West		
Existing Land Use	Undeveloped		
Existing Zoning	R-1-Flex & NC		
General Plan Land Use Designation	LDR (Low Density Residential) & NC (Neighborhood Commercial)		
Number of Lots/Units	66 lots		
Adjacent Zoning and Land Use	*North*	A-5/R-1-8	2100 North/Cranberry Farms Plat A
	South	R-1-15	Jordan Meadows/Green Park Plat B
	East	C/LI	Frontrunner Tracks/Jordan Pointe Phase 1
	West	PF/R-1-8	North Lehi Elementary/Cranberry Ridge
Date of DRC Review	August 3, 2022		
Assigned Planner	Jacob Curtis		

REQUIRED ACTION

City Council	Final approval

APPLICABLE DEVELOPMENT CODE REGULATIONS

Section 11.180. Effective Period of Final Subdivision Plat Approval.
The approval of a final subdivision plat shall be effective for a period of two (2) years from the date the final plat is approved and signed by the City Council, at the end of which time such final subdivision plat shall have been recorded in the office of the Utah County Recorder.

PROPERTY HISTORY

September 23, 1998	The property was annexed into Lehi City with the Alpine School District Annexation.
September 22, 2020	A General Plan amendment to MDR and Commercial was denied by the City Council.
October 26, 2021	A zone change to R-1-Flex and Neighborhood Commercial and a concept were approved by the City Council.
June 14, 2022	The 2100 N preliminary subdivision was approved by the City Council.

REPORT ANALYSIS

The applicant requests approval of the 2100 North Final Subdivision located at 2100 North and 2300 West. This final subdivision is the last step after approval of the concept plan and preliminary subdivision for a PUD (planned unit development). The proposed development includes 66 single family lots and a 1.88-acre neighborhood commercial parcel. This report will describe the proposed layout and DRC comments.

Proposed Layout

Planned Unit Developments or PUDs are a residential overlay that allows applicants to cluster development providing varied lot sizes and open space. Minimal changes have been made to the subdivision since the time of concept and preliminary approval. At the time of preliminary approval, it was noted that guest parking needed to be provided at a rate of one stall per six lots under 50 feet of frontage. Two guest parking stalls are now shown on 2000 North to meet that requirement. The applicant has been allowed exceptions to the standard requirements to develop in the R-1-Flex zone as part of the previous concept and PUD preliminary subdivision approval by the City Council.

The proposed final subdivision shows nearly two acres of neighborhood commercial at the corner of 2300 W and 2100 North. The remaining 18 acres show a mixture of open space and 66 lots of single-family residential ranging from 5,060 square feet to 10,752 square feet. The site proposes connections to 2300 West, 2100 North, and the Green Park Plat B Subdivision to the east providing the required connectivity to the site. In addition, a trail is being shown along 2100 North and another is shown going north/south in the site to provide additional pedestrian connectivity through the neighborhood.

The proposed subdivision shows areas for open space. The open space is in the center of the development, with additional pieces being located along the north/south trail and along the railroad tracks. The proposed subdivision meets the ten percent open space requirement of the PUD that was in place at the time of Concept approval.

DRC Comments

The DRC had 13 comments including the following:

1. This "common area" seems like a remnant and should not be included in the required open space percentage. Consider incorporating it into Lot 21.
2. Update 2300 W to match UDOT requirements
3. Provide details for two 4,000+ sf playground areas: equipment layout and details, shade structures, safety surfacing and curb-walls, etc.
4. Prior to Preconstruction: Provide example residential home elevations as required by PUD ordinance

Please consider all DRC comments as part of the motion.

POSSIBLE MOTIONS AND FINDINGS

The City Council may move to approve, approve with modifications, or deny the proposed final subdivision. Any motion should include findings. Possible findings include:

1. The proposed subdivision meets/does not meet the requirements of the Lehi City Development Code regarding Planned Unit Developments.
2. The proposed subdivision meets/does not meet the requirements of the Lehi City Development Code regarding subdivision approvals.
3. The proposed subdivision conforms/does not conform with the goals and policies of the General Plan.
4. Other findings based upon information presented at the public hearing.

2100 North Subdivision- X Development
DRC Redline Comments

*X Development – requests final subdivision review of **2100 North Subdivision**, a 66-lot residential development located at 2100 North 2300 West.*

DRC Members Present: Glade Kirkham, Garion Rowett, Greg Allred, Jacob Hernandez, Kim Struthers, Gary Smith, Ross Dinsdale, Trent Dyer, Luke Seegmiller
Representatives of the Applicant Present: Glen Goins, Brady Morris, Eric Towner, Steve Hutchings
Date of Plans Reviewed: **7/26/22**
Time Start: 1:05 pm
Time End: 1:30 pm

DRC REDLINE COMMENTS:
Glade – Power: No comments
Garion – Fire: No comments
Greg – Water/Sewer:
1. This SSMH will remain, key note 15 calls for removal.
2. Call out abandonment of 24" SD piping to SDMH behind 2278 West 1750 North (Lot 24 Plat A Jordan Meadows subdivision)
3. All weather access to offsite SD piping through Lehi City property will be required.
4. Access to SD structure located in back yard of lot 18 will be required. Add note to site plan or plat with this requirement.
5. All SD structures on private street (2250 West) must be labeled private.
6. Change this key note 9 to a 1 referencing potable water main size.
7. Extend sewer main an additional 20' North. End with SSMH #235
8. Existing culinary water main in 2060 West is labeled as a 12", change to a 6" (key note 5) sheet C-402
9. Show water/PI mains at standard 4' & 5' depth in all profile sheets, adjust SD depth to eliminate conflicts at crossing.
10. Plug East side of existing SDCB #109

Trent – Parks:
11. Provide details for two 4,000+ sf playground areas: equipment layout and details, shade structures, safety surfacing and curb-walls, etc.

Gary – Building/Inspections: No comments
Jacob – Public Works:
Ross – Engineering:
12. Update 2300 W to match UDOT requirements

Luke- Traffic: No comments
Kim – Planning:
13. This "common area" seems like a remnant and should not be included in the required open space percentage. Consider incorporating it into Lot 21.

General Comments
1. Continue coordination with UDOT

PRIOR TO SCHEDULING A PRECONSTRUCTION MEETING:
1. Provide an engineer's cost estimate for the cost of all improvements to Lehi City Engineering. (Duane Butler- dbutler@lehi-ut.gov or 385-201-2523)
2. 10% Warranty Escrow Bond or Letter of Credit and Public/Private Improvement Agreement for all public and private improvements must be in place (from a financial institution with a branch in Utah).
3. Pay all necessary inspection fees and any up-front supply costs required by the City for power supplies, water system supplies, public signs (stop signs, address signs, etc.) and any other associated costs so that the City can order all necessary supplies for the development.
4. Reimbursement Agreement for 2300 W roadway widening.
5. Need piping in lieu of detention agreement.

Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

6. Include surveyor's and engineer's stamps and signatures on the construction drawings.
7. Show lot addresses on the final plat (must coordinate with Planning Division).
8. Provide example residential home elevations as required by PUD ordinance
9. New property line adjacent to existing roads and any new trails must be staked and reviewed by the City.
10. Irrigation Company signature on the construction drawings for all irrigation ditch demo, removal, or modification.
11. Submit a copy of all required licenses (UDOT).
12. Submit Storm Water Pollution Prevention Plan (SWPPP) through ComplianceGo.com for review by Lehi Public Works (Contact Jacob Hernandez- jhernandezlehi-ut.gov or 385-201-2435).
13. Schedule a SWPPP inspection through Daniel Hadlock at (801) 836-3523 or Greg Soper at (385) 415-4073. This should be the last item completed prior to scheduling a preconstruction meeting.
14. LTSWMP required.
15. Obtain PLSS (Public Land Survey System) clearance letter from the Utah County Surveyor Office. If there are PLSS monuments located on or adjacent to property a monument excavation permit may be required.
    Per Utah Code 17-23-14 and 17-23-15. Contact info. Email surveyor@utahcounty.gov Address 2855 South State Street, Provo, UT 84606 (801) 851-8671 or (801) 851-8669.
16. Address any comments or conditions from City Council approval.
17. Plans need to be signed by Community Development Director and Public Works Director before precon can be scheduled

PRIOR TO RECORDING OF PLAT:

1. Provide a Mylar of the final plat for recording with the owners notarized signature(s).
2. Include surveyor's and engineer's stamps and signatures on the plat.
3. Submit a title report to be reviewed by Lehi City Attorney.
4. Developer shall provide a letter with an exhibit of the property covered from their title company guaranteeing that the property taxes including rollback/greenbelt taxes have been paid of open space or right of way is being dedicated.
5. Provide a signed easement verification sheet (for proposed public utility easements on the plat).
6. Provide a signed original copy of the CC&Rs to record with the plat (to be reviewed by City Attorney).
7. Warranty deed/title insurance (open space, detention, Citypark property, City trails, some road dedication). Title insurance policies on each to be obtained through Marnae at Vanguard Title 801-610-1670
8. All City utilities/infrastructure has been accepted and signed off by all Lehi City Inspectors.

DRC GENERAL COMMENTS:

1. Please note that ALL of the DRC Redline and Prior to Recording of Plat comments MUST be completed before a preconstruction meeting can be scheduled.
2. Once approved by the Planning Commission or City Council (whichever is applicable) plans may be submitted for check-off. Check-off plans consist of one set of 24x36-inch plans submitted to the Planning Division office. When changes need to be made to a check set, revise the affected sheets only. Each new submittal will require a revision date on each new sheet. It is the responsibility of the applicant to follow through with completing the check-off items.
3. Prior to the pre-construction meeting, Lehi City Staff will make copies of plans for the meeting from the check-off set and the developer will pay fees for the copies.
4. On the power, developer will install conduit; Lehi City Power will install all other required power infrastructure shown on the plans and charge the developer for the costs. These costs are separate from power impact fees that are paid with the building permit.
5. Developer is responsible to purchase, move or remove any existing Rocky Mountain Power facilities. Additionally, the Developer is responsible for all costs associated for the purchase of RMP equipment by Lehi City Power. These costs are separate from infrastructure, impact fees, and connection fees.
6. Developer is responsible to furnish adequate rights of way or easements for construction of off-site power line extensions.
7. Residential developments shall complete all required private improvements prior to commencing construction on units totaling more than 80% of the allowed units in the development.
8. The approval of a development shall be effective for a period of two (2) years from the date the development is approved by the Planning Commission or City Council, whichever is applicable.
9. Approved vehicle access for firefighting shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet of temporary or permanent fire department connections. Vehicle access shall be provided by either a twenty (20) foot minimum width temporary or permanent road, capable of supporting vehicle

Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

loading under all weather conditions. Vehicle access shall be kept clear of all fencing, barricades, dumpsters, vehicles, construction materials and debris and maintained until permanent fire apparatus access roads are available.

THIS ITEM WILL BE SCHEDULED FOR CITY COUNCIL ON AUGUST 23, 2022

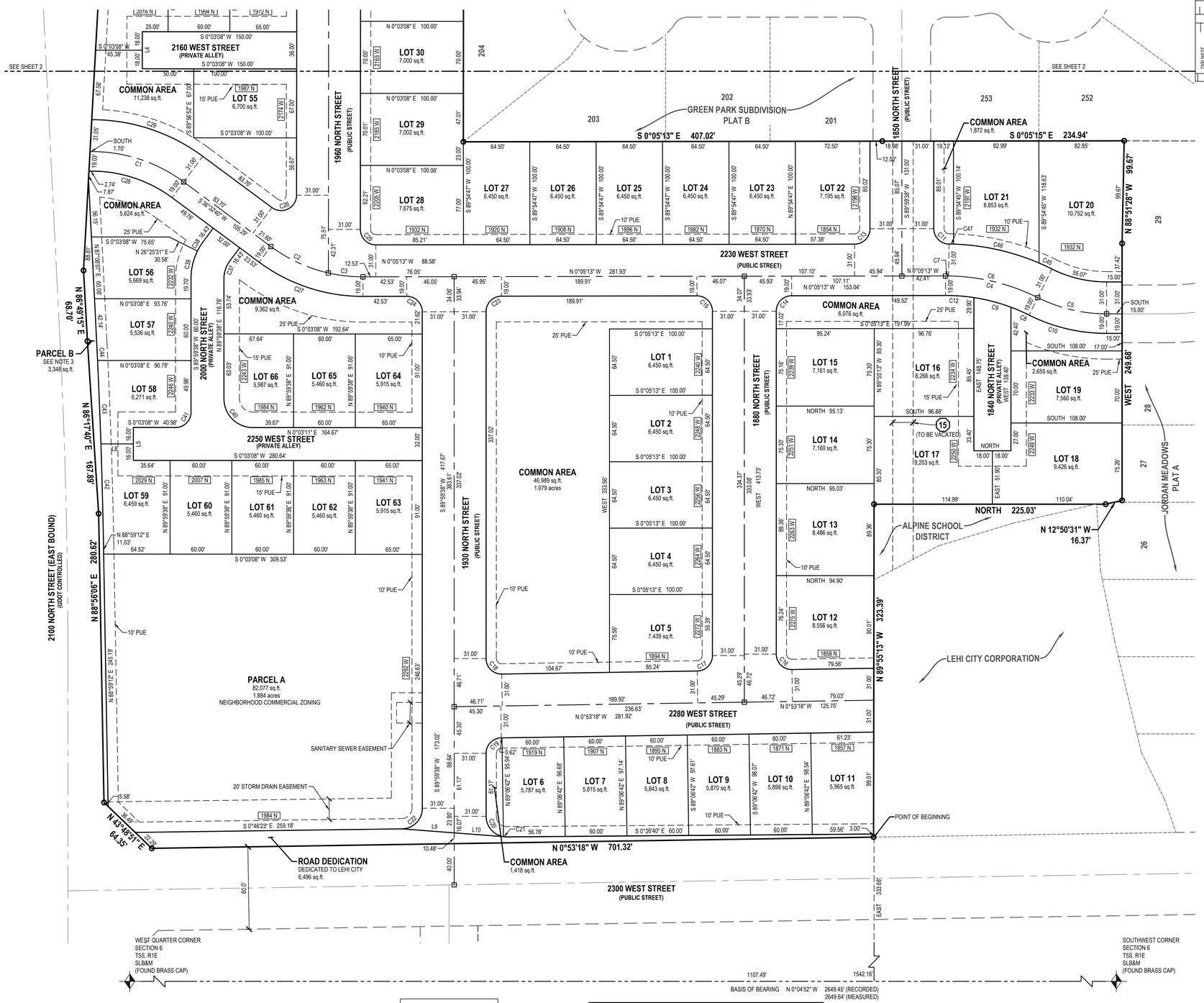
Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

2100 NORTH PUD

A RESIDENTIAL AND COMMERCIAL PLANNED UNIT DEVELOPMENT

LOCATED IN THE SOUTHWEST QUARTER OF SECTION 6,
TOWNSHIP 5 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN
LEHI CITY, UTAH COUNTY, UTAH

FINAL PLAT



VICINITY MAP
NOT TO SCALE

SURVEYOR'S CERTIFICATE

I, PATRICK M. HARRIS, do hereby certify that I am a Professional Land Surveyor in the State of Utah and that I hold License No. 286882 in accordance with Title 58, Chapter 22, of the Professional Engineers and Land Surveyor's Act; I further certify that by authority of the Owners, I have completed a survey of the property described on this subdivision plat in accordance with Section 17-23-17 and have verified all measurements; that the reference monuments shown on this plat are located as indicated and are sufficient to accurately establish the lateral boundaries of the herein described tract of real property; and has been drawn correctly to the designated scale and is a true and correct representation of the herein described lands included in said subdivision, based upon data compiled from records of the county recorders office. I further certify that all lots meet frontage width and area requirements of the applicable zoning ordinances.

DATE

SURVEYOR NAME
LICENSE NO. SURVEYOR NUMBER

BOUNDARY DESCRIPTION

A parcel of land situate in the Southwest Quarter of Section 6, Township 5 South, Range 1 East, Salt Lake Base and Meridian, being more particularly described as follows:

Beginning at a point on the Easterly Right-of-Way of 2300 West Street, said point being North 00°04'52" West 1,541.96 feet along the Section line and East 333.68 feet from the Southwest Corner of Section 6, Township 5 South, Range 1 East, Salt Lake Base and Meridian, and running;

thence along said Easterly Right-of-Way the following two (2) courses:
(1) North 00°53'18" West 701.32 feet;
(2) North 43°48'51" East 64.35 feet to the Southerly Right-of-Way of 2100 North Street;
thence along said Southerly Right-of-Way the following five (5) courses:
(1) North 88°56'06" East 280.62 feet;
(2) North 86°17'40" East 167.89 feet;
(3) North 86°49'15" East 68.70 feet;
(4) South 86°51'57" East 524.97 feet;
(5) South 88°53'01" East 252.64 feet;
thence South 42°34'09" East 198.98 feet;
thence South 41°15'00" East 248.66 feet to the Northerly Boundary Line of Green Park Subdivision Plat B;
thence along the Northerly and Westerly Boundary Line of said Subdivision the following four (4) courses:
(1) South 86°16'38" West 42.09 feet;
(2) North 89°56'52" West 908.33 feet;
(3) South 00°05'13" East 407.02 feet;
(4) South 00°05'15" East 234.94 feet to the Northerly Boundary Line of Jordan Meadows Plat A;
thence along said Northerly Boundary Line the following two (2) courses:
(1) North 88°51'28" West 99.67 feet;
(2) West 249.68 feet;
thence North 12°50'31" West 16.37 feet;
thence North 225.03 feet;
thence North 89°55'13" West 323.39 feet to the point of beginning.

Contains 876,317 Square Feet or 20.117 Acres and 66 Lots.

LEGEND

- SECTION CORNER
- EXISTING STREET MONUMENT
- PROPOSED STREET MONUMENT
- SET 5/8" REBAR WITH YELLOW PLASTIC CAP, OR NAIL STAMPED "ENSIGN ENG. & LAND SURV." AT ALL LOT CORNERS; OFFSET PINS TO PLACED IN BACK OF CURBS (ENSIGN ENG. LAND SURV.)
- BOUNDARY LINE
- CENTER LINE
- EASEMENTS
- SECTION LINE

SETBACKS

FRONT:	16.0 FT
GARAGE:	20.0 FT
REAR:	15.0 FT
SIDE:	5.0 FT
CORNER SIDE:	15.0 FT

EASEMENT NOTES

15. A SEWER EASEMENT IN FAVOR OF LEHI CITY RECORDED AUGUST 20, 1998 AS ENTRY NO. 83919 IN BOOK 4745 AT PAGE 251 OF OFFICIAL RECORDS. THIS EASEMENT IS TO BE VACATED WITH THE RECORDING OF THIS PLAT.

NOTES

1. ALL FRONT LOT CORNERS TO HAVE A RIVET SET ON TOP OF CURB ON THE PROLONGATION OF EACH LOT LINE.
2. THIS AREA IS SUBJECT TO THE NORMAL EVERYDAY SOUNDS, ODORS, SIGHTS, FACILITIES AND ASPECTS ASSOCIATED WITH AN AGRICULTURAL LIFESTYLE. RESIDENTS SHOULD ALSO RECOGNIZE THE RISKS INHERENT WITH LIVESTOCK.
3. PARCEL B TO BE CONVEYED TO THE UTAH DEPARTMENT OF TRANSPORTATION BY DEED UPON RECORDING OF THIS PLAT. UTAH DEPARTMENT OF TRANSPORTATION, 4501 S. CONSTITUTION BLVD, TAYLORSVILLE, UT 84129.
4. ALL COMMON AREAS AND PARK STRIPS ARE TO BE LANDSCAPED AND MAINTAINED BY THE HOA.
5. AN ADDITIONAL 3 LOTS OF BONUS DENSITY ARE ADDED DUE TO THE CONSTRUCTION OF A 10' TRAIL ON 2100 NORTH ROADWAY.

BUILDING NOTES

1. ALL LOTS ARE TO HAVE 24-INCHES OF COMPACTED STRUCTURAL FILL UNDER BUILDING PAD.
2. NO FLOOR SLAB TO BE BELOW EXISTING NATIVE GRADE.
3. ON PUBLIC STREETS PL IS 12' FROM TBC. ON PRIVATE STREETS PL IS AT TBC.

HORIZONTAL GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
HORZ: 1 inch = 50 ft.

UTILITY DEDICATION

By execution of this plat, the Owner(s) shown below does hereby grant and convey to the Lehi City and other public utility companies, a permanent easement and right of way in and to those areas reflected on the map and defined as "PRIVATE STREET" and "COMMON AREA" for construction and maintenance of approved public utilities and appurtenances together with right of access thereto.

RESERVATION OF COMMON AREAS

By execution of this plat, the Owner(s) shown below does hereby reserve all areas shown on this plat "COMMON AREA" for the common enjoyment of all owners and such owners guests and invitees to the project.

OWNER'S DEDICATION

Known all by these presents that I / we, the undersigned owner(s) of the above described tract of land, having caused same to be subdivided, hereafter known as the

2100 NORTH PUD

do hereby dedicate the streets, easements and other public areas as indicated hereon for the perpetual use of the public. Pursuant to Code 10-9a-604d the owner hereby conveys the Common Area and Private Streets as indicated hereon to

_____.

In witness whereof I / we have hereunto set our hand (s) this _____ day of _____ A.D., 20_____.

By:
Its:

CORPORATE ACKNOWLEDGMENT

STATE OF _____ } S.S.
COUNTY OF _____

ON THE _____ DAY OF _____ A.D. 20 _____ PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, IN AND FOR SAID COUNTY OF _____ IN SAID STATE OF _____, WHO BEING DULY SWORN, DID SAY TO ME THAT _____ IS THE _____ OF _____, _____ AND THAT THE FOREGOING INSTRUMENT WAS SIGNED IN BEHALF OF SAID CORPORATION BY AUTHORITY OF ITS ORGANIZATIONAL DOCUMENTS; AND SAID _____ DULY ACKNOWLEDGED TO ME THAT SAID CORPORATION EXECUTED THE SAME.

MY COMMISSION EXPIRES:

NOTARY PUBLIC
RESIDING IN _____ COUNTY

ACCEPTANCE BY LEGISLATIVE BODY

THE CITY COUNCIL OF LEHI, COUNTY OF UTAH, APPROVES THIS SUBDIVISION SUBJECT TO THE CONDITIONS AND RESTRICTIONS HEREON, AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES FOR THE PERPETUAL USE OF THE PUBLIC.

THIS _____ DAY OF _____ A.D. 20_____.

MAYOR

ATTEST:
CLERK/RECORDER
(SEE SEAL BELOW)

2100 NORTH PUD

A RESIDENTIAL AND COMMERCIAL PLANNED UNIT DEVELOPMENT
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 6,
TOWNSHIP 5 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN
LEHI CITY, UTAH COUNTY, UTAH

SURVEYOR'S SEAL	NOTARY PUBLIC SEAL	CITY ENGINEER'S SEAL	CLERK-RECORDER SEAL
PROFESSIONAL LAND SURVEYOR No. 286882 PATRICK M. HARRIS STATE OF UTAH			

IRRIGATION SERVICES

LOCATION	AREA (SQ FT)	SIZE (INCHES)
NORTH COMMON AREA NEXT TO LOT 55	81,990	2
EAST COMMON AREA NEXT TO LOT 39	21,150	1

LAND USE TABLE

PRIVATE ROADWAY	=	36,375 SF	0.835 AC	4%
PUBLIC ROADWAY	=	213,002 SF	4.890 AC	24%
COMMON SPACE	=	95,440 SF	2.191 AC	11%
LOT AREA	=	449,423 SF	10.102 AC	51%
NEIGHBORHOOD COMMERCIAL	=	82,077 SF	1.884 AC	9%
TOTAL AREA	=	876,317 SF	20.117 AC	100%
TOTAL NUMBER OF LOTS	=	66		

OWNER
X DEVELOPMENT
9537 SOUTH 700 EAST
SANDY, UTAH 84070
801-598-5250

ENSIGN
SALT LAKE CITY 45 W. 10000 S., Suite 500 Sandy, UT. 84070 Phone: 801.255.0529 Fax: 801.255.4449
WWW.ENSIGNENG.COM
LAYTON Phone:801.547.1100
TOOELE Phone: 435.843.3590
CEDAR CITY Phone: 435.865.1453
RICHFIELD Phone: 435.896.2983

SHEET 1 OF 2

PROJECT NUMBER : 8018C
MANAGER : BDM
DRAWN BY : SJL
CHECKED BY : KFW
DATE : 7/26/22

PLANNING COMMISSION APPROVAL

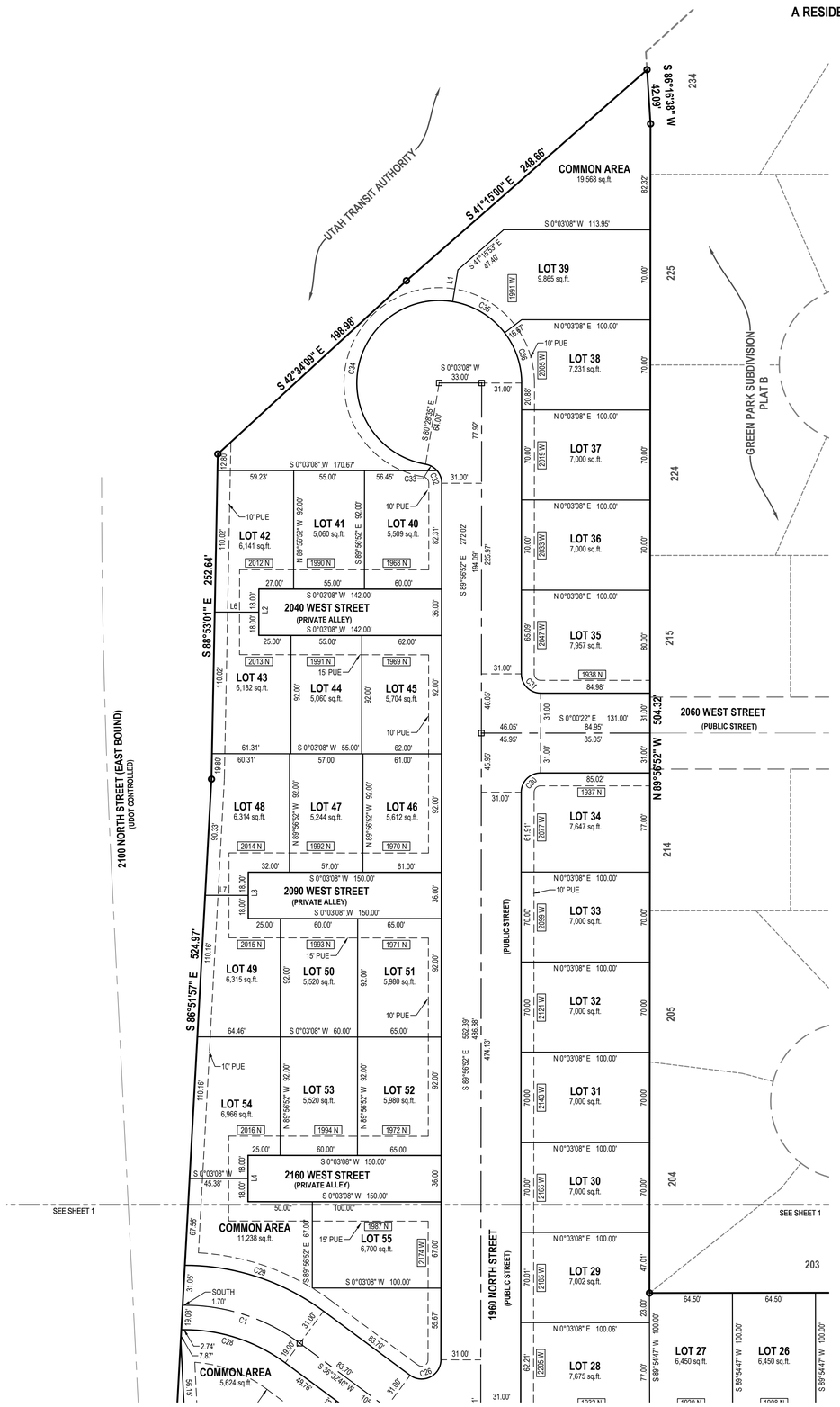
APPROVED THIS _____ DAY OF _____
A.D. _____ BY THE LEHI CITY PLANNING COMMISSION.

CHAIRMAN, PLANNING COMMISSION

2100 NORTH PUD

A RESIDENTIAL AND COMMERCIAL PLANNED UNIT DEVELOPMENT
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 6,
TOWNSHIP 5 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN
LEHI CITY, UTAH COUNTY, UTAH

FINAL PLAT



LINE TABLE		
LINE	BEARING	LENGTH
L1	S80°36'14"E	25.00'
L2	S89°56'52"E	36.00'
L3	S89°56'52"E	36.00'
L4	S89°56'52"E	36.00'
L5	S89°59'38"W	32.00'
L6	S0°03'08"W	34.27'
L7	S0°03'08"W	33.54'
L8	N0°03'08"E	31.53'
L9	N4°23'29"E	50.88'
L10	N4°23'29"E	48.01'

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C1	150.00'	95.67'	36°32'40"	N18°16'20"E	94.06'
C2	150.00'	62.04'	23°41'57"	S24°41'42"W	61.60'
C3	150.00'	33.86'	12°55'56"	S6°22'45"W	33.78'
C4	200.00'	92.85'	26°36'01"	N13°12'48"E	92.02'
C5	150.00'	69.41'	26°30'48"	S13°15'24"W	68.79'
C6	200.00'	89.88'	25°44'56"	N13°38'20"E	89.13'
C7	200.00'	2.97'	0°51'05"	N0°20'20"E	2.97'
C8	181.00'	19.15'	6°03'45"	S23°28'56"W	19.14'
C9	181.00'	37.26'	11°47'40"	N14°33'14"E	37.19'
C10	169.00'	78.20'	26°30'48"	S13°15'24"W	77.51'
C11	15.00'	23.36'	89°13'46"	N45°22'45"E	21.07'
C12	181.00'	27.62'	8°44'37"	S4°17'05"W	27.59'
C13	15.00'	23.54'	89°55'09"	N45°02'48"W	21.20'
C14	15.00'	23.52'	89°50'37"	S45°04'42"E	21.18'
C15	15.00'	23.60'	90°09'24"	S44°55'19"W	21.24'
C16	15.00'	23.79'	90°53'18"	S44°33'21"W	21.38'
C17	15.00'	23.33'	89°06'42"	S45°26'39"E	21.05'
C18	15.00'	23.79'	90°52'58"	S44°33'10"W	21.38'
C19	15.00'	23.33'	89°07'07"	N45°26'50"W	21.05'
C20	20.00'	28.27'	80°59'59"	S49°29'39"W	25.98'
C21	20.00'	3.26'	9°20'19"	S4°19'30"W	3.26'
C22	20.00'	31.15'	89°13'57"	S45°23'21"E	28.09'
C23	15.01'	23.54'	89°50'55"	N45°02'48"W	21.20'
C24	15.00'	23.58'	90°04'51"	N44°57'13"E	21.23'
C25	15.00'	23.60'	90°08'21"	N44°58'58"E	21.24'

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C26	15.00'	33.12'	126°29'32"	S26°42'06"E	26.79'
C27	169.00'	108.05'	36°37'53"	S18°13'44"W	106.22'
C28	131.00'	83.55'	36°32'40"	S18°16'20"W	82.15'
C29	181.00'	115.45'	36°32'40"	S18°16'20"W	113.50'
C30	15.00'	23.55'	89°56'30"	S44°58'37"E	21.20'
C31	15.00'	23.58'	90°03'30"	N45°01'23"E	21.22'
C32	15.00'	10.54'	40°15'51"	S69°55'12"W	10.33'
C33	15.00'	10.54'	40°15'51"	N29°39'21"E	10.33'
C34	64.00'	200.92'	179°52'20"	N80°32'24"W	128.00'
C35	64.00'	48.20'	43°09'09"	N30°58'20"E	47.07'
C36	64.00'	41.89'	37°30'14"	N71°18'01"E	41.15'
C37	28.00'	17.86'	36°33'02"	N71°43'51"W	17.56'
C38	60.00'	10.60'	10°07'10"	N58°30'54"W	10.58'
C39	60.00'	27.68'	26°25'53"	N76°47'26"W	27.43'
C40	28.00'	43.95'	89°56'30"	S45°01'24"W	39.58'
C41	15.00'	23.58'	90°03'30"	S44°58'37"E	21.22'
C42	6035.50'	96.01'	0°54'41"	N88°31'51"E	96.01'
C43	6035.50'	81.07'	0°46'11"	N87°41'25"E	81.07'
C44	6035.50'	17.94'	0°10'13"	N87°13'14"E	17.94'
C45	231.00'	13.83'	3°25'52"	N24°47'52"E	13.83'
C46	231.00'	85.51'	21°12'35"	N12°28'39"E	85.02'
C47	231.00'	4.47'	1°06'29"	N1°19'04"E	4.47'

LOWEST NATIVE GRADE PER LOT	
LOT NUMBER	NATIVE ELEVATION AT TIME OF SURVEY (FT)
1	4,526.6
2	4526.0
3	4,525.5
4	4524.5
5	4,524.5
6	4522.9
7	4,522.9
8	4,523.0
9	4,523.2
10	4,523.4
11	4,523.6
12	4,524.7
13	4,524.6
14	4,526.8
15	4,526.5
16	4,526.3
17	4,525.7
18	4,525.7
19	4,525.8
20	4,527.7
21	4,527.9
22	4,528.2
23	4,528.6
24	4,528.6
25	4,528.2
26	4,527.8
27	4,527.8
28	4,527.8
29	4,529.5
30	4,530.5
31	4,531.7
32	4533.3
33	4,535.1
34	4,536.4
35	4,538.8
36	4,538.8
37	4,539.5
38	4,540.2
39	4,541.1
40	4,539.2
41	4,539.2
42	4,539.2
43	4,538.5
44	4,538.5
45	4,538.5
46	4,537.7
47	4,537.9
48	4,538.0
49	4,535.2
50	4,535.0
51	4,534.8
52	4,532.6
53	4,533.0
54	4,533.4
55	4,530.1
56	4,527.9
57	4,527.4
58	4,527.1
59	4,525.5
60	4,525.4
61	4,525.4
62	4,525.4
63	4,525.4

LEGEND

- SECTION CORNER
- EXISTING STREET MONUMENT
- PROPOSED STREET MONUMENT
- ENSIGN ENG. LAND SURV. — SET 5/8" REBAR WITH YELLOW PLASTIC CAP, OR NAIL STAMPED "ENSIGN ENG. & LAND SURV." AT ALL LOT CORNERS; OFFSET PINS TO PLACED IN BACK OF CURBS
- BOUNDARY LINE
- CENTER LINE
- EASEMENTS
- SECTION LINE

HORIZONTAL GRAPHIC SCALE

50 0 25 50 100
(IN FEET)
HORZ: 1 inch = 50 ft.

2100 NORTH PUD

A RESIDENTIAL AND COMMERCIAL PLANNED UNIT DEVELOPMENT
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 6,
TOWNSHIP 5 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN
LEHI CITY, UTAH COUNTY, UTAH

OWNER
X DEVELOPMENT
9537 SOUTH 700 EAST
SANDY, UTAH 84070
801-598-5250

ENSIGN
SALT LAKE CITY
45 W. 10000 S., Suite 500
Sandy, UT. 84070
Phone: 801.255.0529
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WWW.ENSIGNENG.COM

LAYTON Phone:801.547.1100
TOOELE Phone: 435.843.3590
CEDAR CITY Phone: 435.865.1453
RICHFIELD Phone: 435.896.2983

SHEET 2 OF 2

PROJECT NUMBER :
MANAGER : BDM
DRAWN BY : SJL
CHECKED BY : KFW
DATE : 7/26/22

SURVEYOR'S SEAL: PROFESSIONAL LAND SURVEYOR No. 286882 PATRICK M. HARRIS STATE OF UTAH

NOTARY PUBLIC SEAL | CITY ENGINEER'S SEAL | CLERK-RECORDER SEAL

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

Know what's below. Call before you dig.

BENCHMARK

EAST QUARTER CORNER
SECTION 2
TOWNSHIP 5 SOUTH, RANGE 1 WEST
SALT LAKE BASE & MERIDIAN

ELEVATION = 4536.22

GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. ALL IMPROVEMENTS MUST COMPLY WITH ADA STANDARDS AND RECOMMENDATIONS.
3. SEE LANDSCAPE/ARCHITECTURAL PLANS FOR CONCRETE MATERIAL, COLOR, FINISH, AND SCORE PATTERNS THROUGHOUT SITE.
4. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITION OF THE M.U.T.C.D. (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
5. ALL SURFACE IMPROVEMENTS DISTURBED BY CONSTRUCTION SHALL BE RESTORED OR REPLACED, INCLUDING TREES AND DECORATIVE SHRUBS, SOD, FENCES, WALLS AND STRUCTURES, WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN ON THE CONTRACT DOCUMENTS.
6. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR ASPHALT.
7. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.

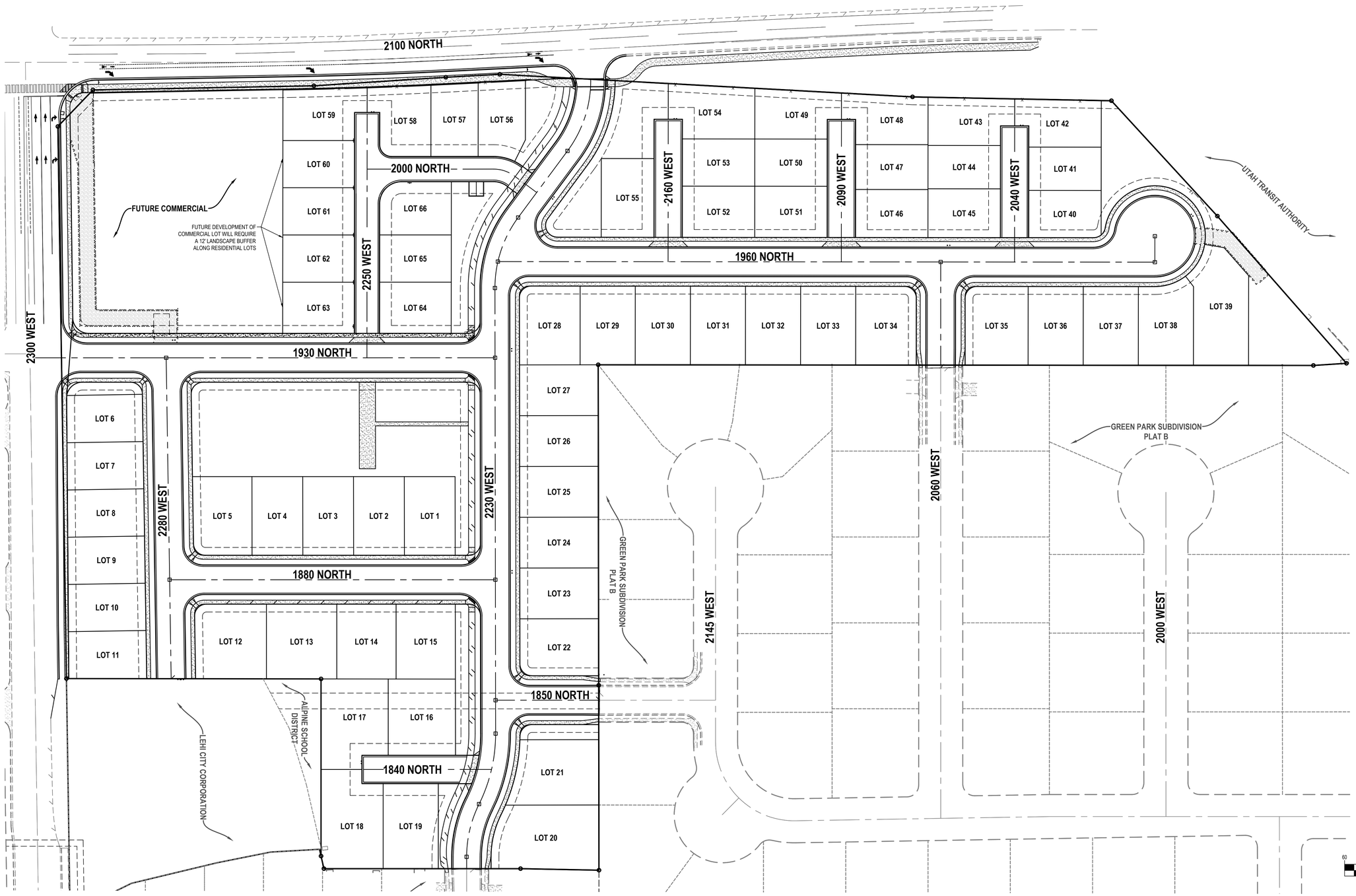
SITE SUMMARY TABLE

DESCRIPTION	AREA (SF)	PERCENTAGE
HARDSCAPE/ROAD ROW	194,587	22%
SINGLE FAMILY LOTS	441,102	50%
OPEN SPACE	156,072	18%
FUTURE COMMERCIAL	84,556	10%
TOTAL SITE	876,317 20.117 ACRES	100%

TYPE OF DEVELOPMENT:
RESIDENTIAL PUD

UNIT COUNT

SINGLE FAMILY RESIDENTIAL = 66
TOTAL UNITS = 66
UNITS PER ACRE = 3.28
ON SITE PARKING STALLS = 2



ENSIGN
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CEDAR CITY
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RICHFIELD
Phone: 435.896.2983

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FOR:
XDEVELOPMENT
9537 S 700 E
SANDY, UT 84070
CONTACT:
ERIC TOWNER
PHONE: 801-598-5250

2100 NORTH SUBDIVISION

2100 NORTH AND 2300 WEST
LEHI CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
07/26/2022
5150016-2202
BRADEN D. MORRIS
STATE OF UTAH

OVERALL SITE PLAN

PROJECT NUMBER 8018C	PRINT DATE 7/26/22
DRAWN BY I. MAERKI	CHECKED BY M. BUDGE
PROJECT MANAGER B. MORRIS	

C-200

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

Know what's below. Call before you dig.

BENCHMARK

EAST QUARTER CORNER
SECTION 2
TOWNSHIP 5 SOUTH, RANGE 1 WEST
SALT LAKE BASE & MERIDIAN

ELEVATION = 4536.22

GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
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6. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR ASPHALT.
7. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.

NODES - STREET INTERSECTION OR CUL-DE-SAC LOCATED WITHIN A PROPOSED DEVELOPMENT. A STREET INTERSECTION EXISTS WHERE TWO OR MORE NAMED ROADS INTERSECT MARKED WITH A CIRCLE.

LINKS - STREETS THAT CONNECT TO NODES OR EXTERNAL STREETS NOT INCLUDED IN THE PROPOSED DEVELOPMENT.

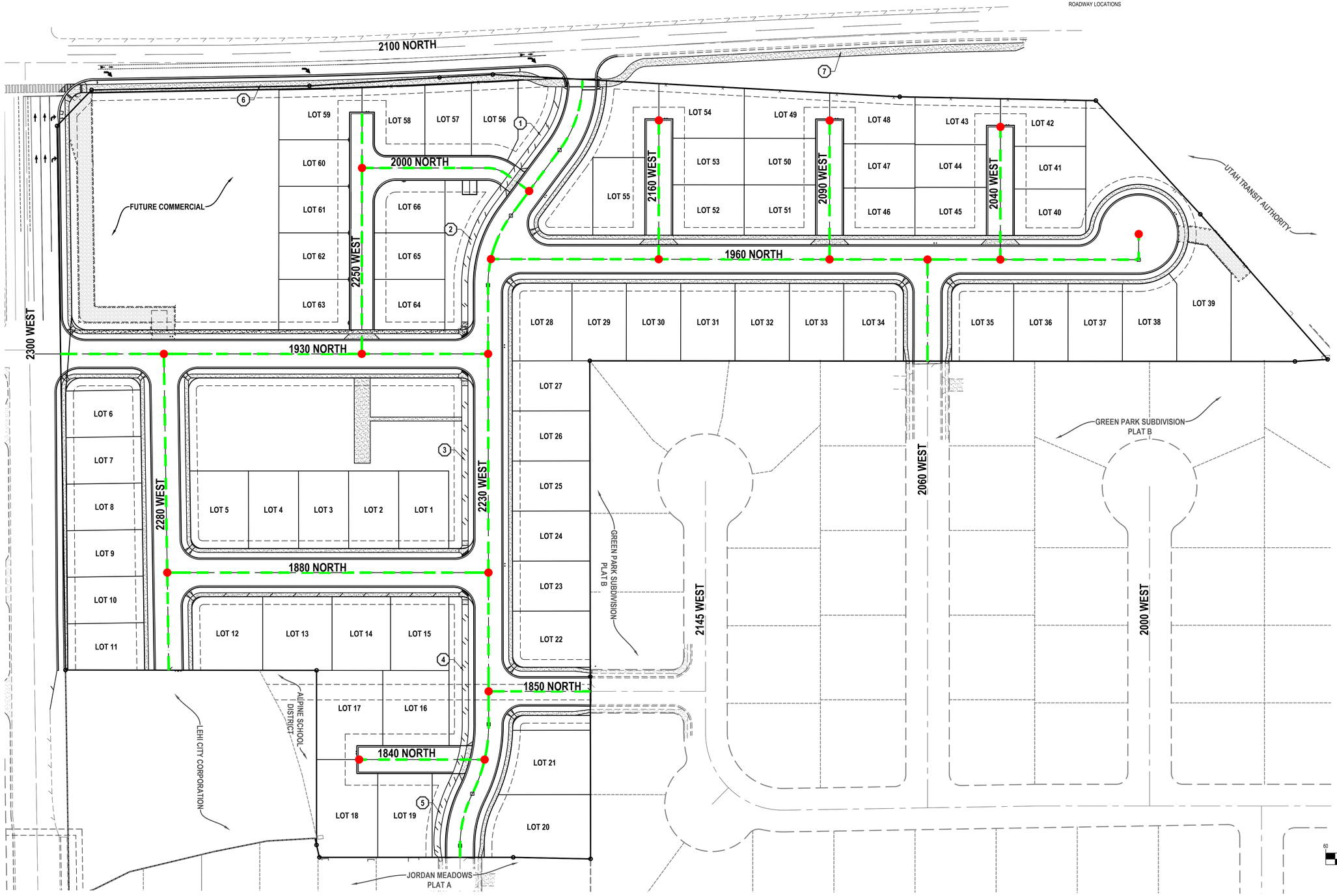
ADDITIONAL HALF LINKS DUE TO TRAIL SYSTEMS

1. TRAIL ON WEST SIDE OF 2230 WEST (NORTH) BETWEEN INTERSECTIONS.
2. TRAIL ON WEST SIDE OF 2230 WEST (NORTH) BETWEEN INTERSECTIONS.
3. TRAIL ON WEST SIDE OF 2230 WEST (CENTER) BETWEEN INTERSECTIONS.
4. TRAIL ON WEST SIDE OF 2230 WEST (SOUTH) BETWEEN INTERSECTIONS.
5. TRAIL ON WEST SIDE OF 2230 WEST (SOUTH) BETWEEN INTERSECTIONS.
6. TRAIL ON SOUTH SIDE OF 2100 NORTH, WEST OF 2230 WEST.
7. TRAIL ON SOUTH SIDE OF 2100 NORTH, EAST OF 2230 WEST.

SITE SUMMARY TABLE

DEVELOPABLE UNITS	66
ACRES	20.117
DENSITY	3.28 DU/AC
NODES	19
LINKS	27
ADDITIONAL HALF LINKS DUE TO TRAIL SECTIONS (SEE LIST)	7
LINKS PLUS HALF LINKS	30.5
INDEX SCORE	1.6
MIN. INDEX SCORE	1.6
MAX. BLOCK LENGTH*	999 FT

* EXCEEDS MAXIMUM BLOCK LENGTH DUE TO EXISTING ROADWAY LOCATIONS



HORIZONTAL GRAPHIC SCALE

60 0 30 60 120

(IN FEET)
HORZ: 1 inch = 60 ft.

ENSIGN
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SANDY, UT 84070
CONTACT:
ERIC TOWNER
PHONE: 801-598-5250

2100 NORTH SUBDIVISION

2100 NORTH AND 2300 WEST
LEHI CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
07/26/2022
5150016-2202
BRADEN D. MORRIS
STATE OF UTAH

CIRCULATION PLAN

PROJECT NUMBER 8018C	PRINT DATE 7/26/22
DRAWN BY I. MAERKI	CHECKED BY M. BUDGE
PROJECT MANAGER B. MORRIS	

C-200A

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

Know what's below. Call before you dig.

BENCHMARK

EAST QUARTER CORNER
SECTION 2
TOWNSHIP 5 SOUTH, RANGE 1 WEST
SALT LAKE BASE & MERIDIAN

ELEVATION = 4536.22

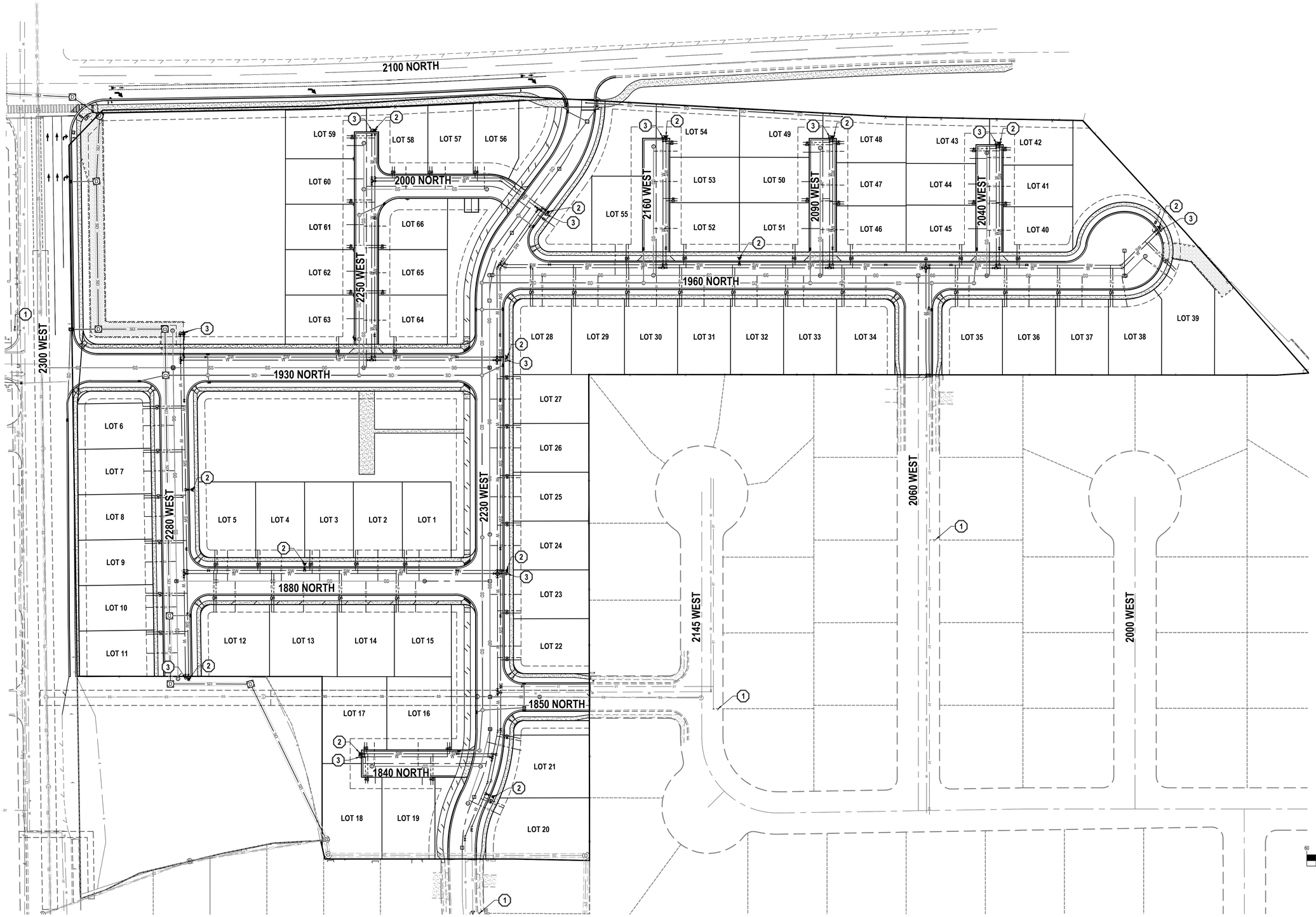
GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY THE LOCATIONS OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT. THE CONTRACTOR IS TO VERIFY ALL CONNECTION POINTS WITH THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN. IF CONFLICTS WITH EXISTING UTILITIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.
3. ALL SANITARY SEWER INFRASTRUCTURE TO BE INSTALLED PER GOVERNING AGENCY STANDARD PLANS AND SPECIFICATIONS.
4. ALL WATER INFRASTRUCTURE TO BE INSTALLED PER GOVERNING AGENCY OR APWA STANDARD PLANS AND SPECIFICATIONS.
5. DEFLECT OR LOOP ALL WATERLINES TO AVOID CONFLICTS WITH OTHER UTILITIES PER GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
6. PROJECT SHALL COMPLY WITH ALL UTAH DIVISION OF DRINKING WATER RULES AND REGULATIONS INCLUDING, BUT NOT LIMITED TO, THOSE PERTAINING TO BACKFLOW PROTECTION AND CROSS CONNECTION PREVENTION.
7. THE CONTRACTOR IS TO COORDINATE ALL UTILITIES WITH MECHANICAL/PLUMBING PLANS.
8. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING UTILITY STRUCTURES OR PIPES.
9. THE CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITIES AS NEEDED PER LOCAL GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
10. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.
11. MAINTAIN 3 FEET OF CLEARANCE AROUND FIRE HYDRANTS.

SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. EXISITING FIRE HYDRANT
2. PROPOSED FIRE HYDRANT PER LEHI CITY STANDARDS AND SPECIFICATIONS
3. PROPOSED BLOWOFF



HORIZONTAL GRAPHIC SCALE

60 0 30 60 120

(IN FEET)
HORZ: 1 inch = 60 ft.

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2100 NORTH SUBDIVISION

2100 NORTH AND 2300 WEST
LEHI CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
07/26/2022
5150016-2202
BRADEN D. MORRIS
STATE OF UTAH

OVERALL HYDRANT AND UTILITY PLAN

PROJECT NUMBER 8018C	PRINT DATE 7/26/22
DRAWN BY I. MAERKI	CHECKED BY M. BUDGE
PROJECT MANAGER B. MORRIS	

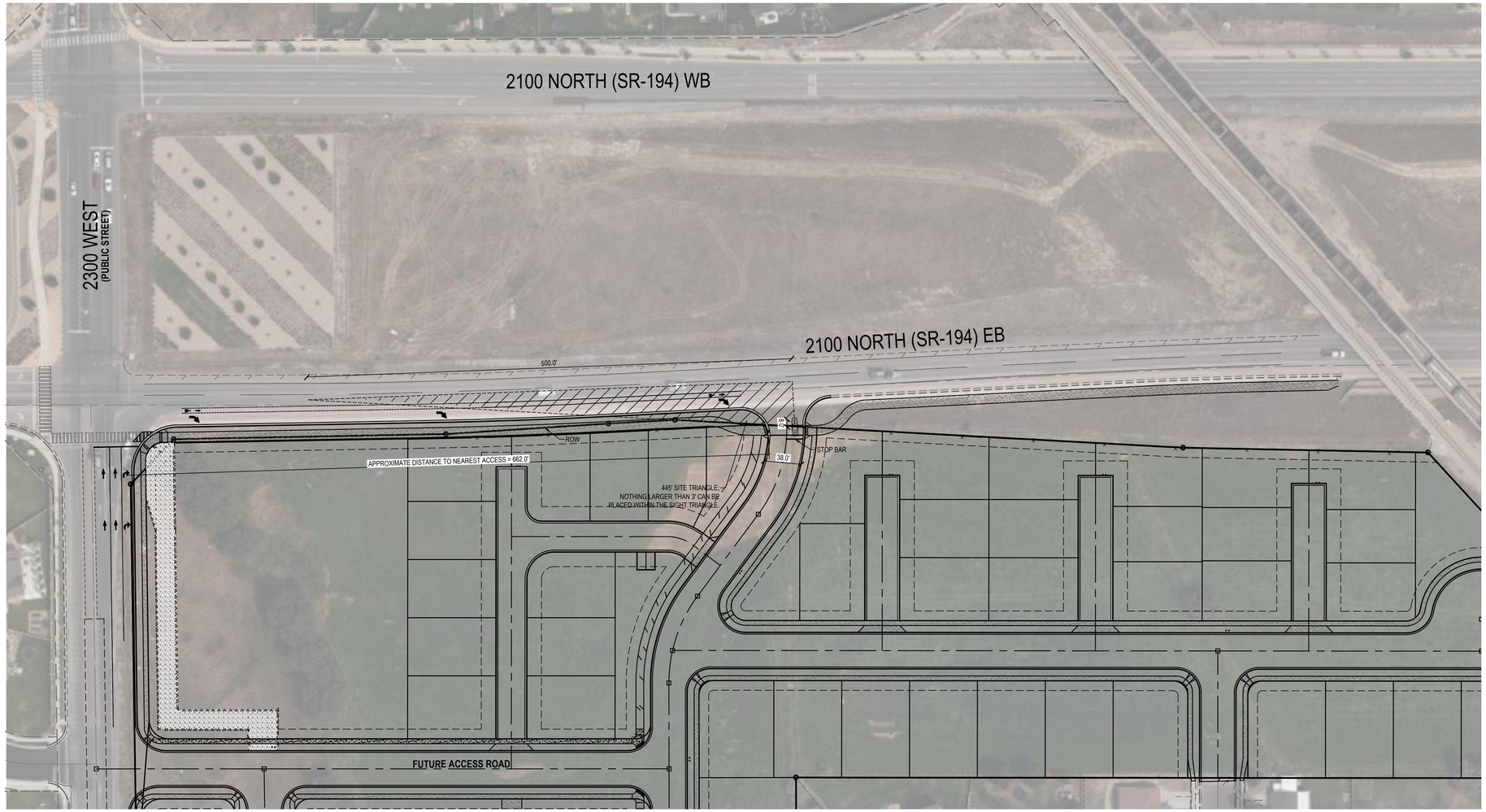
C-400

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

BENCHMARK

EAST QUARTER CORNER
SECTION 2
TOWNSHIP 5 SOUTH, RANGE 1 WEST
SALT LAKE BASE & MERIDIAN

ELEVATION = 4536.22



NOTE:

1. **SIGHT TRIANGLE SIZE IS BASED ON 40 MPH DESIGN SPEED**
2. **NOTHING LARGER THAN 3' CAN BE PLACED WITHIN THE SIGHT TRIANGLES. CONTRACTOR TO REMOVE ANY EXISTING VEGETATION THAT IS WITHIN THE SIGHT TRIANGLE AND LARGER THAN 3'.**

UDOT NOTES

1. UDOT RESERVES THE RIGHT, AT ITS OPTION, TO INSTALL A RAISED MEDIAN ISLAND OR RESTRICT THE ACCESS TO A RIGHT-IN OR RIGHT-OUT AT ANY TIME.
2. WORK ON THE UDOT RIGHT-OF-WAY IS SEASONALLY RESTRICTED FROM OCTOBER 15 TO APRIL 15.
3. ROW WORK: WORK IS NOT ALLOWED ON THE RIGHT-OF-WAY DURING THE AM/PM PEAK TRAFFIC HOURS (6:00 – 9:00 AM AND 3:30–6:00 PM). ADDITIONAL WORK RESTRICTIONS OR MODIFICATIONS MAY BE IMPOSED AT THE TIME OF THE ENCROACHMENT PERMIT.
4. REPLACE ALL PAVEMENT MARKINGS IN KIND (TAPE WITH TAPE AND PAINT WITH PAINT). INSTALL ALL PAINT LINES WITH PERMANENT PAINT APPLICATION PER UDOT SPECIFICATION 02765. PAINT MUST HAVE AT LEAST 6 MONTHS LIFE AS DETERMINED BY UDOT'S PERMITS OFFICER.
5. ALL NEW PAVEMENT WORDS, ARROWS AND SYMBOLS MARKING WITHIN THE RIGHT-OF-WAY SHALL BE PRE-FORMED THERMO PLASTIC. ALL LETTERS, ARROWS, AND SYMBOLS SHALL CONFORM WITH THE "STANDARD ALPHABET FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" ADOPTED BY THE FEDERAL HIGHWAY ADMINISTRATION.
6. ALL SIGNS INSTALLED ON THE UDOT RIGHT-OF-WAY MUST BE HIGH INTENSITY GRADE (TYPE XI SHEETING) WITH A B3 SLIP BASE. INSTALL ALL SIGNS PER UDOT SN SERIES STANDARD DRAWINGS.
7. BEFORE COMMENCING WORK ON THE STATE HIGHWAY, THE GENERAL CONTRACTOR IS REQUIRED TO OBTAIN AN ENCROACHMENT PERMIT FROM THE APPLICABLE REGION'S PERMITS OFFICE BEFORE WORKING WITHIN THE STATE RIGHT-OF-WAY.
8. NO ROAD CUTS ALLOWED ON THIS JOB.
9. FOR ALL UTILITY TAPS (ROAD CUTS), USE FLOWABLE FILL PER UDOT'S CURRENT MIX DESIGN (50-150 PSI) UDOT SPEC. 03575.
10. ALL UTILITIES WITHIN THE PAVED SURFACE MUST BE BORED.
11. FOR EXCAVATIONS OUTSIDE OF THE ROADWAY, BACK FILL WITH UDOT APPROVED GRANULAR BORROW AND ROAD BASE. COMPACTION PER UDOT SPEC. 2056 AND 2721.
12. OWNER, DEVELOPER, AND/OR THE CONTRACTOR IS REQUIRED TO HIRE AN INDEPENDENT COMPANY FOR ALL TESTING WITHIN THE UDOT RIGHT-OF-WAY.
13. OWNER, DEVELOPER, AND THE CONTRACTOR ARE RESPONSIBLE FOR ANY DAMAGE TO THE UDOT RIGHT-OF-WAY THAT MAY BE DIRECTLY OR INDIRECTLY CAUSED BY THE DEVELOPMENT ACTIVITY.
14. TRAFFIC SIGNAL INSTALLATION OR MODIFICATION REQUIRES A SEPARATE WARRANTY BOND ONCE THE WORK HAS BEEN COMPLETED AND ACCEPTED. THE PERMITTEE IS RESPONSIBLE FOR HIRING AN INDEPENDENT INSPECTION COMPANY TO PERFORM INSPECTION SERVICES FOR ALL SIGNAL WORK COMPLETED. FOR A LIST OF THE UDOT APPROVED CONTRACTORS AND CONSULTANTS CONTACT THE APPROPRIATE REGIONS TRAFFIC SIGNALS ENGINEER.
15. PARTIAL CONCRETE PANEL REPLACEMENT IS NOT ALLOWED. WHEN PANELS ARE REMOVED, THE ENTIRE PANEL IS REQUIRED TO BE REPLACED PER UDOT STANDARDS, SPECIFICATIONS, AND STANDARD DRAWINGS.
16. DOUBLE SAW CUT THE CONCRETE TO PREVENT THE SPALLING OF OTHER CONCRETE PANELS AND TO AVOID OVER CUTS. OVER CUTS AND SPALLS WILL REQUIRE FULL PANEL REPLACEMENT.
17. ALL ABOVE GROUND FEATURES INCLUDING UTILITIES (POLES, FIRE HYDRANTS, BOXES, ETC.) MUST BE RELOCATED OUT OF THE AASHTO CLEAR ZONE OR A MINIMUM OF 18" BEHIND CURB.

NORTH

HORIZONTAL GRAPHIC SCALE

60 0 30 60 120

(IN FEET)
HORZ: 1 inch = 60 ft.

ENSIGN
THE STANDARD IN ENGINEERING

SALT LAKE CITY
45 W. 10000 S., Suite 500
Sandy, UT 84070
Phone: 801.255.0529

LAYTON
Phone: 801.547.1100

TOOELE
Phone: 435.843.3590

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:
XDEVELOPMENT
9537 S 700 E
SANDY, UT 84070
CONTACT:
ERIC TOWNER
PHONE: 801-598-5250

2100 NORTH SUBDIVISION

2100 NORTH AND 2300 WEST
LEHI CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
07/26/2022
5150016-2202
BRADEN D. MORRIS
STATE OF UTAH

SITE TRIANGLE PLAN

PROJECT NUMBER 8018C	PRINT DATE 7/26/22
DRAWN BY I. MAERKI	CHECKED BY M. BUDGE
PROJECT MANAGER B. MORRIS	

U-4.0

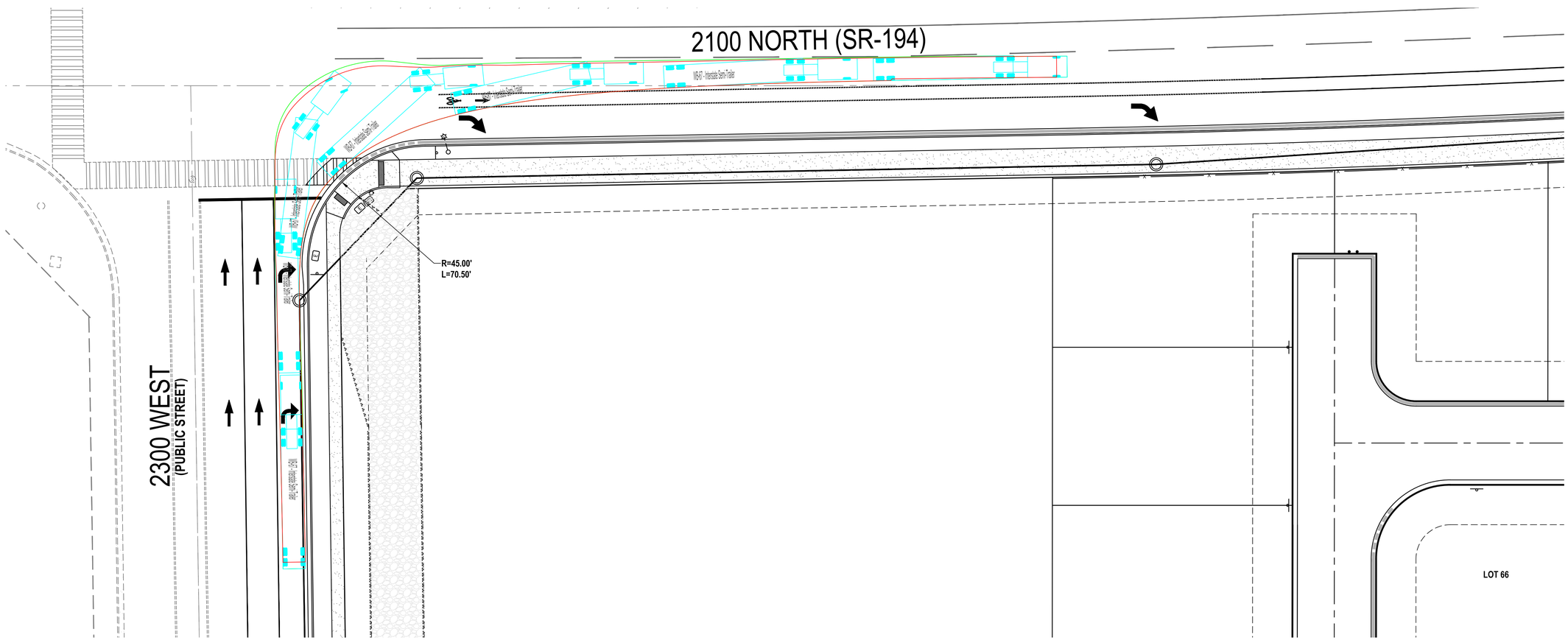
CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

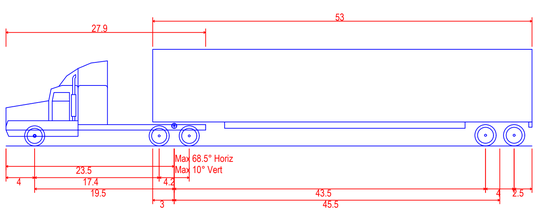
Know what's **below.** **Call** before you dig.

BENCHMARK

EAST QUARTER CORNER
SECTION 2
TOWNSHIP 5 SOUTH, RANGE 1 WEST
SALT LAKE BASE & MERIDIAN

ELEVATION = 4536.22





WB-67 - Interstate Semi-Trailer

Overall Length	73.501ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°

NORTH

HORIZONTAL GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
HORZ: 1 inch = 20 ft.

ENSIGN
THE STANDARD IN ENGINEERING

SALT LAKE CITY
45 W. 10000 S., Suite 500
Sandy, UT 84070
Phone: 801.255.0529

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Phone: 801.547.1100

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Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:
XDEVELOPMENT
9537 S 700 E
SANDY, UT 84070
CONTACT:
ERIC TOWNER
PHONE: 801-598-5250

2100 NORTH SUBDIVISION

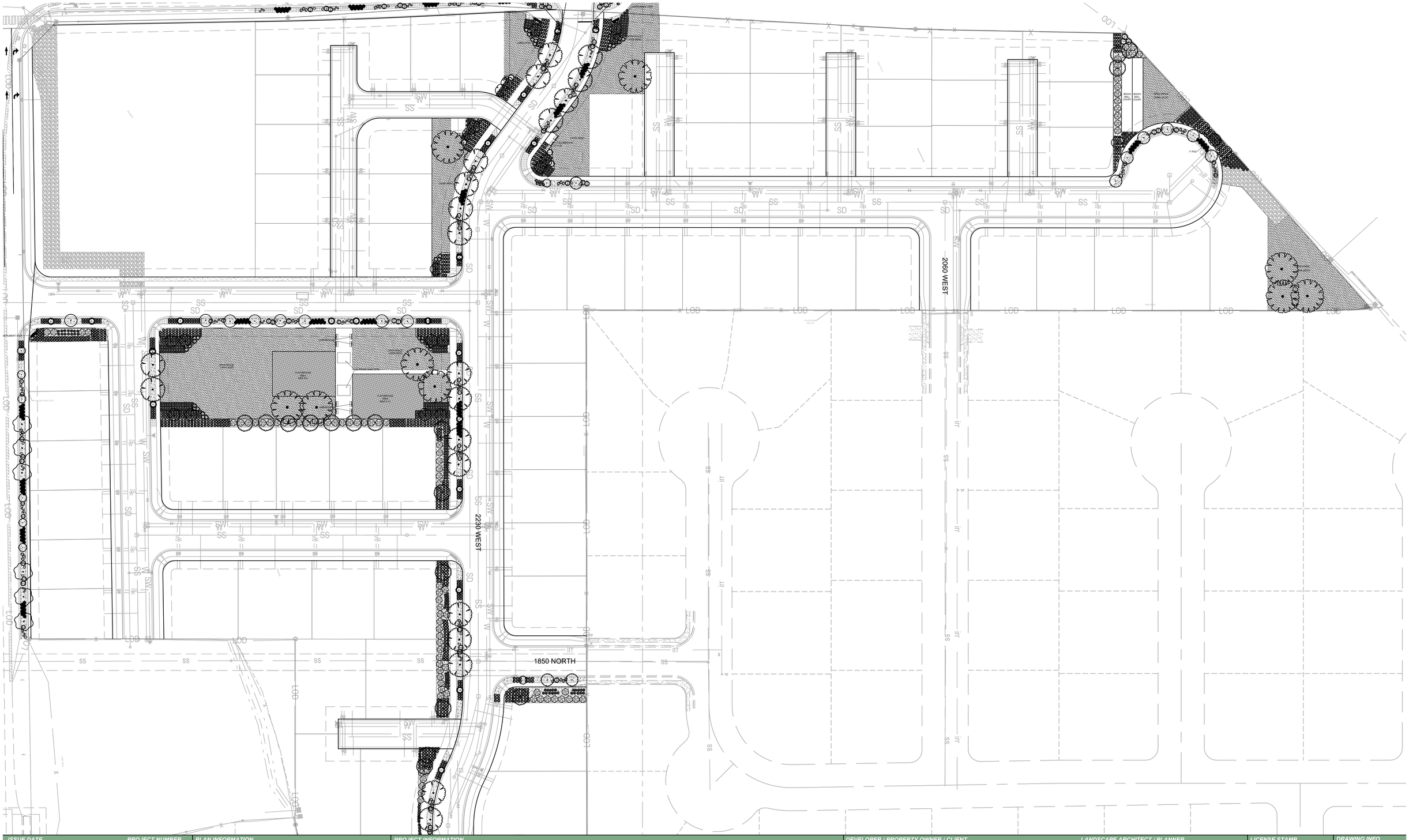
2100 NORTH AND 2300 WEST
LEHI CITY, UTAH

REGISTERED PROFESSIONAL ENGINEER
07/26/2022
5150016-2202
BRADEN D. MORRIS
STATE OF UTAH

AUTOTURN EXHIBIT

PROJECT NUMBER 8018C	PRINT DATE 7/26/22
DRAWN BY I. MAERKI	CHECKED BY M. BUDGE
PROJECT MANAGER B. MORRIS	

U-7.0



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION
7/12/2022	UT21148	

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

N

0' 25' 50' 100' 200'
GRAPHIC SCALE: 1" = 50'

PROJECT INFORMATION

X-DEVELOPMENT RESIDENTIAL SUBDIVISION

2300 W. 2100 N.
LEHI, UTAH

DEVELOPER / PROPERTY OWNER / CLIENT

ENSIGN ENGINEERING
ATT: BRADY MORRIS
801-450-7282
BMORRIS@ENSIGNENG.COM

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture / Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

LICENSED LANDSCAPE ARCHITECT
JEREMY AINSWORTH
8128127-5301
07/12/2022
LICENSING SEAL
STATE OF UTAH

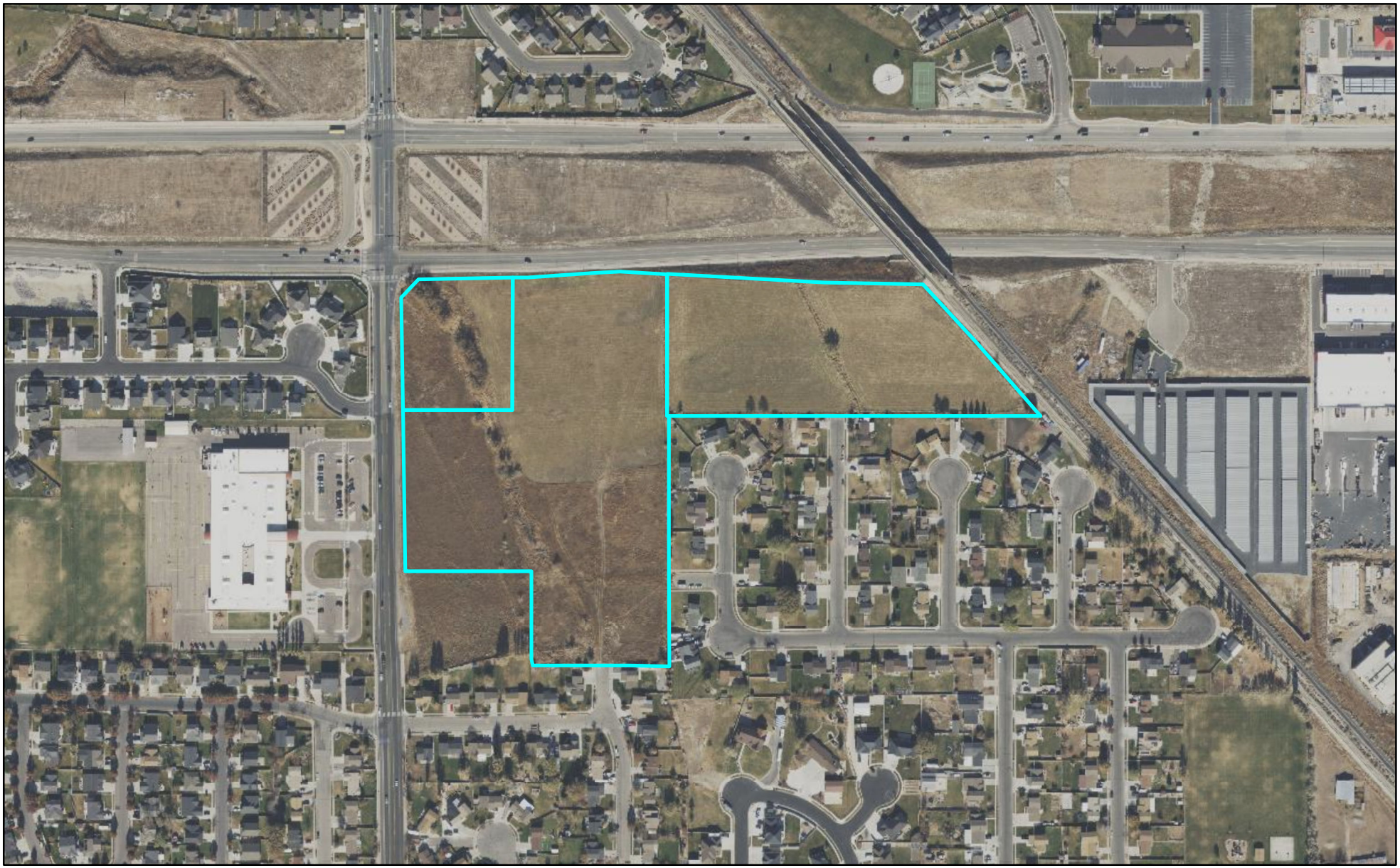
DRAWING INFO	
PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	7/12/2022

LANDSCAPE PLAN OVERALL

LP-O

2100 North PUD Subdivision

Aerial

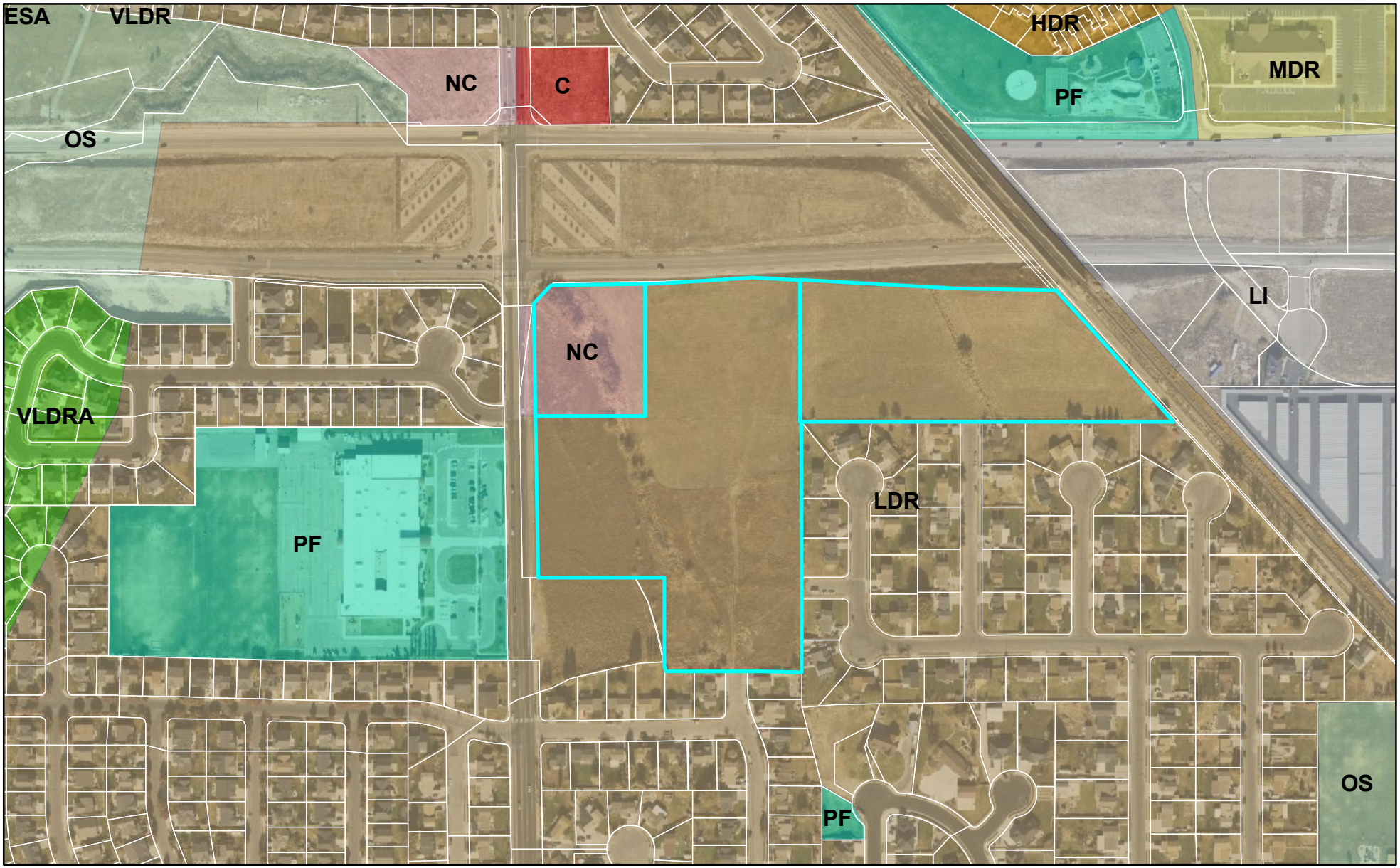


0 420 840 Feet

LEHI CITY

2100 N PUD Subdivision

General Plan

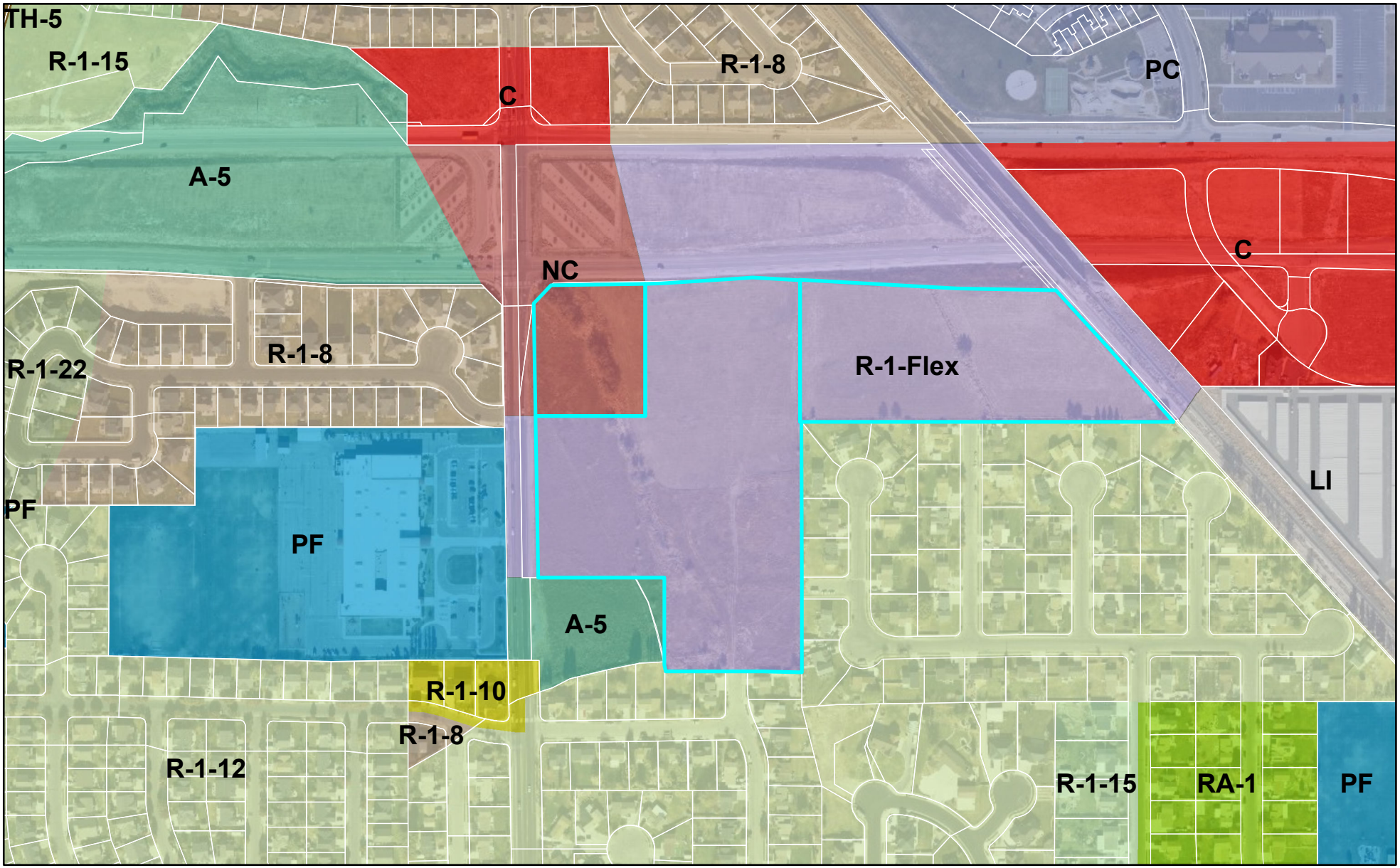


0 420 840 Feet

LEHI CITY

2100 N PUD Subdivision

Zoning



0 420 840 Feet

LEHI CITY

Agenda Item No: 11

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Jacob Curtis
Submitting Department: Planning Division
Item Type: Action Item
Agenda Section: Regular Agenda

Subject:
Consideration of a Condo Conversion approval for the R&E Properties located at 550 West State Street.

Suggested Action:

Attachments:

CC Staff Report R & E Properties Condo Conversion Final Subdivision 08.23.22.docx

R&E Properties DRC 8.10.22.docx

R and E Condo Conversion Subdivision 08.10.22 narrative, plat.pdf

R&E Aerial.pdf

R&E General Plan.pdf

R&E Zoning.pdf

R & E PROPERTIES CONDO CONVERSION SUBDIVISION

CITY COUNCIL REPORT

Applicant	Mike Hanyon		
Meeting Date	August 23, 2022		
Requested Action/Purpose	Approval of a final subdivision		
Location	550 West State Street		
Existing Land Use	Office/Warehouse		
Existing Zoning	MU		
General Plan Land Use Designation	C-H (Heavy Commercial)		
Number of Lots/Units	4 units		
Adjacent Zoning and Land Use	*North*	MU	DTA Tumbling
	South	MU	Commercial
	East	MU	Lehi Rail Trail/Commercial
	West	MU	State Street/Bennett Body & Frame
Date of DRC Review	August 10, 2022		
Assigned Planner	Jacob Curtis		

REQUIRED ACTION

City Council	Final approval

APPLICABLE DEVELOPMENT CODE REGULATIONS

Section 11.310. Condominium Plats.

A. Reference is made to Section 57-8 Utah Code for definition and specific requirements.

B. Building permits for condominium units may be issued following approval of the final plat by the City Council as provided by this Code. The building permit will be issued based upon a certified architectural plan of the building elevation and floor plans as approved by the Chief Building Official.

C. All condominium plats shall be filed in the office of the Utah County Recorder following completion of construction and before acceptance of improvements.

PROPERTY HISTORY

June 15, 1872 – This property was part of the original incorporated area of Lehi City.
June 13, 1996 – Part of this property was included in the Reed Curtis Subdivision.
December 14, 2017 – The Planning Commission approved the R&E Properties concept
April 12, 2018 – The Planning Commission approved the R&E Properties Site plan.

REPORT ANALYSIS

The applicant requests approval of a condo conversion for the existing building at 550 West State Street. The request includes condominiumizing the building into four individual units. This will allow the current owner to sell individual

unit ownership to interested tenants. All necessary improvements have been previously constructed and no parking along State Street is required for these units.

The DRC had seven comments including the following comments:

1. Assign separate letters for each unit on the plat (550A, B, C, and D)
2. On the plat legend, clarify that for sale lot is private ownership.
3. Check with State Code/ County on condo plat requirements. I think they need more information on each unit, vertical space, etc.
4. Title block should state that this is a commercial condominium.
5. On the front landscaping area, show as limited common area vs. each unit owning a part of it. Private condo area should be within the building only.

Please consider all DRC comments in the motion.

POSSIBLE MOTIONS AND FINDINGS

The City Council may move to approve or deny the proposed condo conversion. Any motion should include findings. Possible findings include:

1. The proposed condo conversion meets the requirements of the Lehi City Development Code regarding conversion approvals.
2. The proposed subdivision conforms/does not conform with the goals and policies of the General Plan.
3. Other findings based upon information presented at the public hearing.

R&E Properties Condo Conversion
DRC Redline Comments

Mike Hanyon – requests review of the R&E Properties condo conversion located at 550 West State Street.

DRC Members Present: Glade Kirkham, Garion Rowett, Greg Allred, Ryan Allred, Jacob Hernandez, Kim Struthers, Gary Smith, Ross Dinsdale, Trent Dyer
Representatives of the Applicant Present: Ken Berg
Date of Plans Reviewed: 8/2/22
Time Start: 2:40 pm
Time End: 2:45 pm

DRC REDLINE COMMENTS:
Glade – Power: No comments
Garion – Fire: No comments
Greg/Ryan – Water/Sewer: No comments
Trent – Parks: No comments
Gary – Building/Inspections:
1. Verify that the walls between units are a rated wall.
2. Provide Irrigation service size.
3. Assign separate letters for each unit on the plat (550A, B, C, and D)

Jacob – Public Works: No comments
Ross – Engineering: No comments
Kim – Planning:
4. On the plat legend, clarify that for sale lot is private ownership.
5. Check with State Code/ County on condo plat requirements. I think they need more information on each unit, vertical space, etc.
6. Title block should state that this is a commercial condominium.
7. On the front landscaping area, show as limited common area vs. each unit owning a part of it. Private condo area should be within the building only.

THIS ITEM WILL BE SCHEDULED FOR CITY COUNCIL ON AUGUST 23, 2022

Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

CIVIL ENGINEERING

11038 N Highland Blvd
Suite 400
Highland Ut, 84003
office (801) 492-1277
cell (801) 616-1677
ken@bergcivil.com

R and E Properties Plat "A"

07/15/2022

To: Lehi City Planning Department

From: Ken Berg, P.E., Berg Civil Engineering

Subject: R and E Properties Plat "A"

NARRATIVE

The proposed project consists of 4 commercial warehouse units that front along the existing State Street with a shared cross access driveway. No parking along State Street is required for these units.

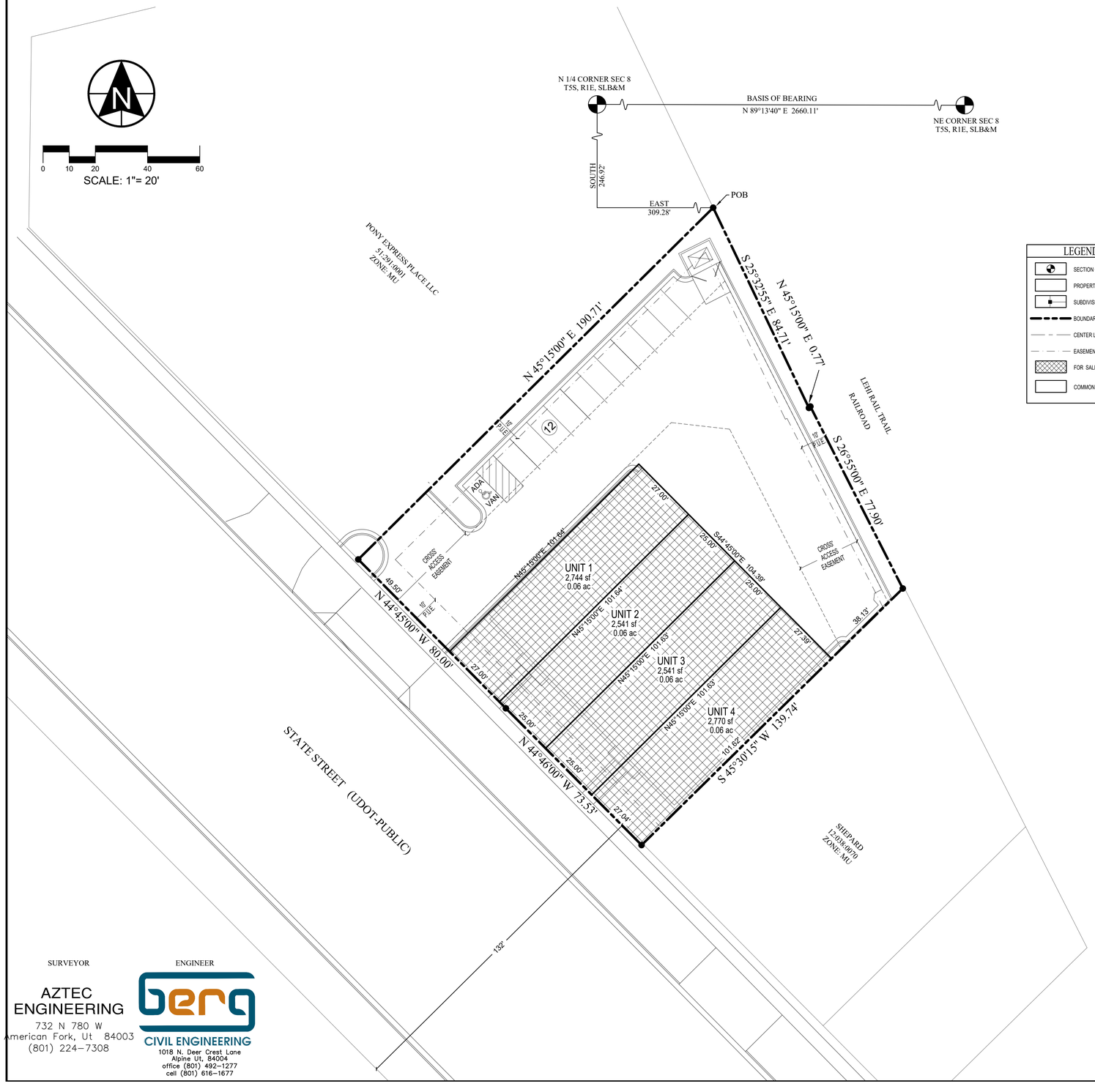
All necessary improvements have been previously constructed.

Regards,

Ken R. Berg, PE

R and E PROPERTIES PLAT "A"

A COMMERCIAL DEVELOPMENT
AMENDING A PORTION OF THE REED CURTIS SUBDIVISION
LOCATED IN THE NORTHEAST QUARTER
OF SECTION 8 TOWNSHIP 5 SOUTH, RANGE 1 EAST, SALT LAKE BASE & MERIDIAN
LEHI CITY, UTAH COUNTY, STATE OF UTAH



LEGEND

- SECTION CORNER
- PROPERTY CORNER
- SUBDIVISION MONUMENT
- BOUNDARY LINE
- CENTER LINE
- EASEMENT LINE
- FOR SALE LOT
- COMMON AREA

TABULATIONS

TOTAL LOT	0.58 AC OR 25,347 SF	100%
BUILDING FOOTPRINTS	8,000 SF	32%
PARKING LOT	12,676 SF	50%
LANDSCAPING	4,671 SF	18%

CROSS ACCESS EASEMENT

Beginning at a point along the east right of way line of State Street, said point located South 381.18 feet and East 173.84 feet from the North Quarter Corner of Section 8, Township 5 South, Range 1 East, Salt Lake Base and Meridian; thence along said right-of-way line South 44°45'00" East 47.00 feet; thence North 45°15'00" East 121.61 feet; thence South 83°33'57" East 22.41 feet; thence South 26°55'00" East 94.07 feet; thence North 45°30'15" East 25.18 feet; thence North 26°55'00" West 137.74 feet; thence South 45°15'00" West 138.20 feet; thence North 44°45'00" West 23.00 feet; thence South 45°15'00" West 36.00 feet to the point of beginning.

Area = 0.179 Acres or 7,787 SF

RESERVATION OF COMMON AREAS

THE OWNER, IN RECORDING THIS PLAT ("THE DEVELOPMENT") HAS DESIGNATED CERTAIN AREAS OF THE DEVELOPMENT AS COMMON AREAS, INTENDED FOR THE OWNERS OF CENTER POINTE TOWNHOMES PLAT A FOR INGRESS, EGRESS, RECREATIONAL AND OTHER RELATED USES AS SET FORTH IN THE DECLARATION OF PROTECTIVE EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS ("THE DECLARATION") PERTAINING TO THE DEVELOPMENT. THE DESIGNATED AREAS ARE NOT INTENDED, NOR ARE THEY DEDICATED, FOR USE BY THE GENERAL PUBLIC, BUT ARE RESERVED FOR THE COMMON USE AND ENJOYMENT OF THE OWNERS IN THE DEVELOPMENT, AS MORE FULLY PROVIDED IN THE DECLARATION RECORDED CONCURRENTLY WITH THE PLAT IN THE OFFICIAL RECORDS OF UTAH COUNTY, UTAH.

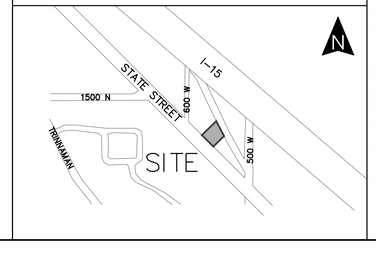
GENERAL NOTES

1. ALL EXTERIOR BOUNDARY ANGLE POINTS OF THE SUBDIVISION AND LOT CORNERS SHALL BE MARKED IN ACCORDANCE WITH THE LEHI CITY DESIGN STANDARDS AND IMPROVEMENTS SPECIFICATIONS INCLUDING BRASS PINS IN THE BACK OF CURB FOR ALL FRONT PROPERTY LINES.

ADDRESS TABLE

UNIT	ADDRESS
1	550 W STATE STREET
2	550 W STATE STREET
3	550 W STATE STREET
4	550 W STATE STREET

VICINITY



SURVEYOR'S CERTIFICATE

I, AARON D. THOMAS, DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, AND THAT I HOLD A LICENSE IN ACCORDANCE WITH TITLE 58, CHAPTER 22, PROFESSIONAL ENGINEERS AND LAND SURVEYORS LICENSING ACT, UTAH CODE ANNOTATED, 1953 AS AMENDED, CERTIFICATE NO. 6418780. I FURTHER CERTIFY THAT BY AUTHORITY OF THE OWNERS, I HAVE MADE A SURVEY OF THE TRACT OF LAND SHOWN ON THIS PLAT AND DESCRIBED BELOW, HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, STREETS AND EASEMENTS, HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED ON THIS PLAT IN ACCORDANCE WITH SECTION 17-23-17, UTAH CODE ANNOTATED, 1953 AS AMENDED, HAVE VERIFIED ALL MEASUREMENTS, AND HAVE PLACED MONUMENTS AS REPRESENTED ON THE PLAT. I FURTHER CERTIFY THAT EVERY EXISTING RIGHT-OF-WAY AND EASEMENT GRANT OF RECORD FOR UNDERGROUND FACILITIES, AS DEFINED IN SECTION 54-8a-2, UTAH CODE ANNOTATED, 1953 AS AMENDED, AND FOR OTHER UTILITY FACILITIES, IS ACCURATELY DESCRIBED ON THIS PLAT, AND THAT THIS PLAT IS TRUE AND CORRECT.

DATE (SEE SEAL BELOW)

BOUNDARY DESCRIPTION

Beginning at a point located South 246.92 feet and East 309.28 feet from the North Quarter Corner of Section 8, Township 5 South, Range 1 East, Salt Lake Base and Meridian; thence North 45°15'00" East 190.71 feet; thence South 25°32'55" East 84.71 feet; thence North 45°15'00" East 0.77 feet; thence South 26°55'00" East 77.90 feet; thence South 45°30'15" West 139.74 feet; thence North 44°46'00" West 73.53 feet; thence North 44°45'00" West 80.00 feet to the point of beginning.

Area = 0.582 Acres or 25,347 SF

OF UNITS = 4

OWNER'S DEDICATION

THE UNDERSIGNED OWNER(S) OF THE PROPERTY DESCRIBED ABOVE AND SHOWN ON THIS PLAT, HAS(HAVE) CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, STREETS, AND EASEMENTS AND DOES(DO) HEREBY DEDICATE ANY PUBLIC STREETS AND OTHER PUBLIC AREAS SHOWN THEREON FOR THE PERPETUAL USE OF THE PUBLIC. PURSUANT TO UTAH CODE 10-9a-604(D), THE OWNER(S) HEREBY CONVEYS ALL COMMON AREAS SHOWN ON THIS PLAT AS INDICATED HEREON TO THE CENTER POINTE TOWNHOMES HOA AND THEIR MAILING ADDRESS IS _____

IN WITNESS HEREOF WE HAVE HEREUNTO SET OUR HANDS THIS _____

DAY OF _____, A.D. _____

ACKNOWLEDGMENT

STATE OF UTAH
COUNTY OF UTAH } S.S.

ON THE ____ DAY OF _____, A.D. ____ PERSONALLY APPEARED BEFORE ME THE SIGNERS OF THE FOREGOING DEDICATION WHO DULY ACKNOWLEDGE TO ME THAT THEY DID EXECUTE THE SAME.

MY COMMISSION EXPIRES _____ NOTARY PUBLIC

MY COMMISSION NO# _____ "A NOTARY PUBLIC COMMISSIONED IN UTAH"

PRINTED NAME OF NOTARY

ACCEPTANCE BY LEGISLATIVE BODY

THE CITY COUNCIL OF LEHI CITY COUNTY OF UTAH, APPROVES THIS SUBDIVISION AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS AND EASEMENTS AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES FOR THE PERPETUAL USE OF THE PUBLIC THIS _____ DAY OF _____, A.D. _____.

APPROVED _____ MAYOR

APPROVED _____ CITY ENGINEER (SEE SEAL BELOW) ATTEST _____ CLERK-RECORDER (SEE SEAL BELOW)

PLANNING COMMISSION APPROVAL

APPROVED THIS _____ DAY OF _____, A.D. _____ BY THE LEHI CITY PLANNING COMMISSION

_____ CHAIR, PLANNING COMMISSION

R and E PROPERTIES PLAT "A"

A COMMERCIAL DEVELOPMENT
AMENDING A PORTION OF THE REED CURTIS SUBDIVISION
LOCATED IN THE NORTHEAST QUARTER
OF SECTION 8 TOWNSHIP 5 SOUTH, RANGE 1 EAST, SALT LAKE BASE & MERIDIAN
LEHI CITY, UTAH COUNTY, STATE OF UTAH

SCALE: 1" = 20 FEET

SURVEYOR'S SEAL	NOTARY PUBLIC SEAL	CITY ENGINEER SEAL	CLERK-RECORDER SEAL

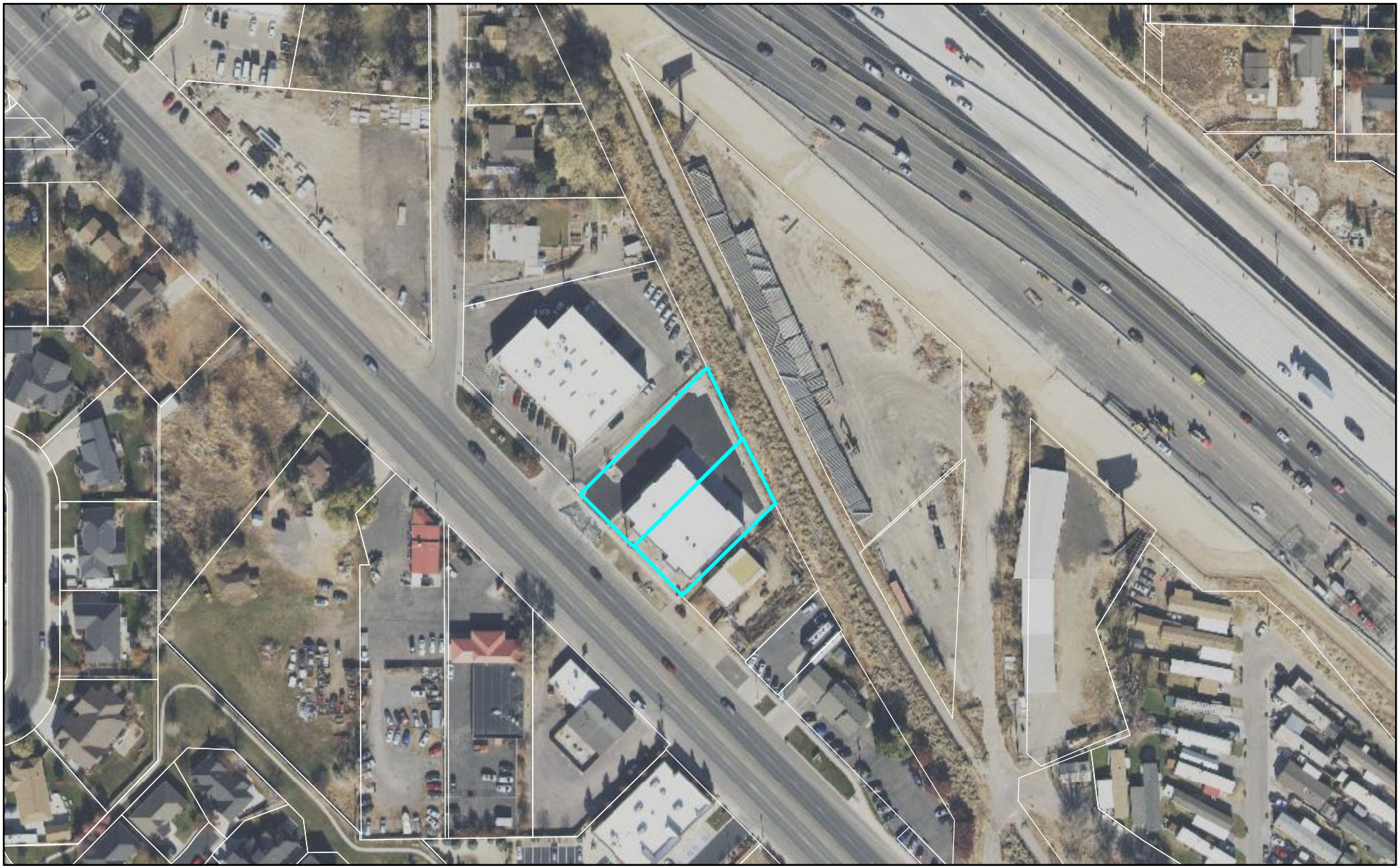
SURVEYOR
AZTEC ENGINEERING
732 N 780 W
American Fork, Ut 84003
(801) 224-7308

ENGINEER
berg CIVIL ENGINEERING
1018 N. Deer Crest Lane
Alpine Ut, 84004
office (801) 492-1277
cell (801) 616-1677

MAR 2022 I:\My Drive\Berg Civil\2022\R-n-E Properties\Rnee Plat A.dwg

R & E Properties Condo Conversion Subdivision

Aerial



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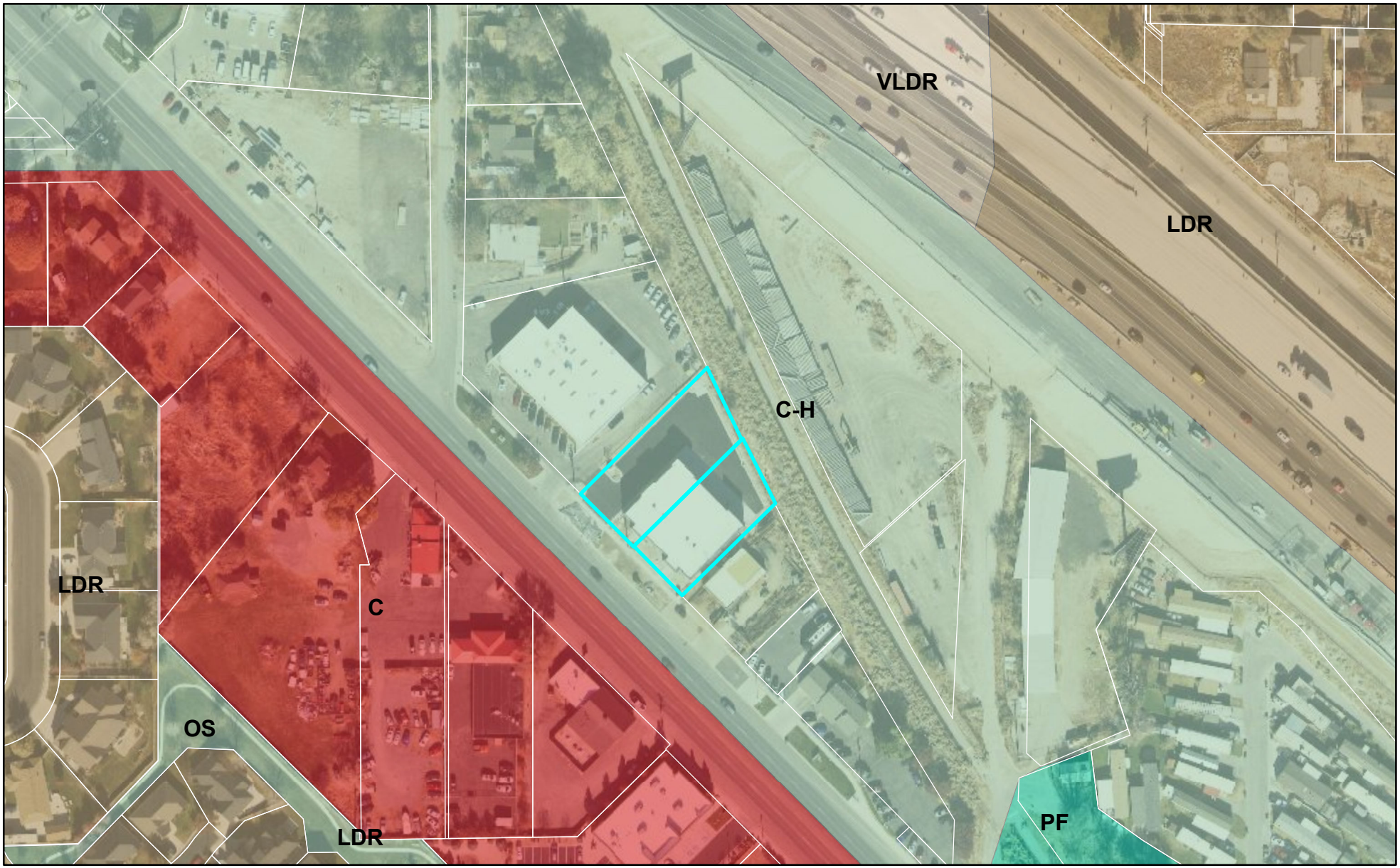
LEHI CITY

R & E Properties Condo Conversion Subdivision

General Plan



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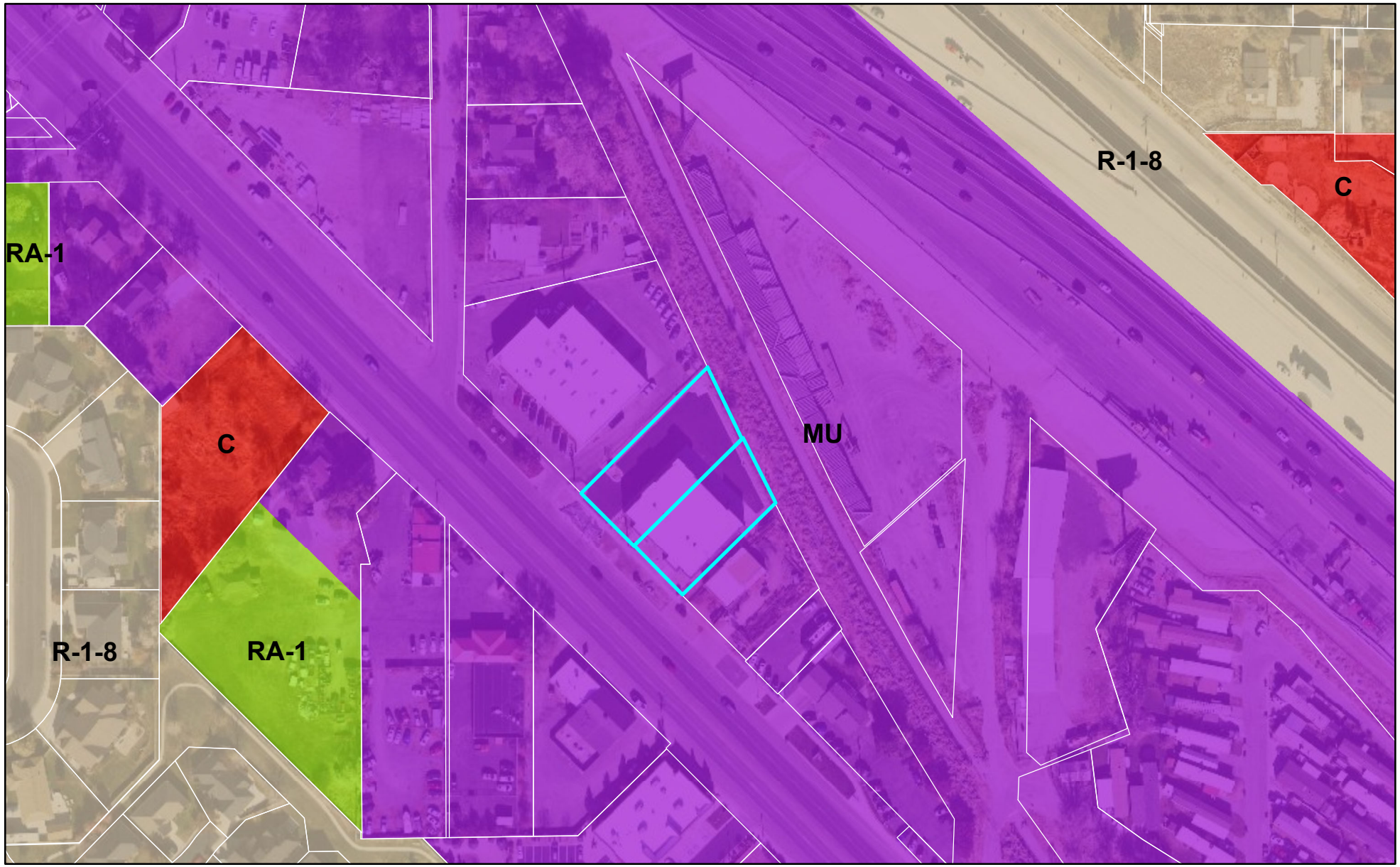
LEHI CITY

R & E Properties Condo Conversion Subdivision

Zoning



0 175 350 Feet

LEHI CITY

Agenda Item No: 12

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Jacob Curtis
Submitting Department: Planning Division
Item Type: Action Item
Agenda Section: Regular Agenda

Subject:
Consideration of Preliminary subdivision approval for the River Point Phase 2, a 257-unit residential development located at 1200 North 3600 West.

Suggested Action:

Attachments:

CC Staff Report River Point Phase 2 Preliminary Subdivision 08.23.22.docx

River Point Phase 2 Preliminary Subdivsion 07.20.22.docx

River Point Phase 2 Preliminary Subdivision - narrative.pdf

River Point Phase 2 Preliminary Subdivision - plans.pdf

River Point 2 Aerial.pdf

River Point 2 GP.pdf

River Point 2 Zoning.pdf

RIVER POINT PHASE 2 PRELIMINARY SUBDIVISION

CITY COUNCIL REPORT

Applicant	Edge Homes		
Meeting Date	August 23, 2022		
Requested Action/Purpose	Approval of a proposed preliminary subdivision		
Location	1200 North 3600 West		
Existing General Plan Designation	Medium Density Residential (MDR) and High Density Residential (HDR)		
Existing Zoning	R-2 (Medium Density Residential) and R-3 (High Density Residential)		
Existing Land Use	Agriculture		
Number of Lots/Units	257 units		
Adjacent Zoning and Land Use	*North*	R-2 and R-3	Gardner Point Subdivision
	South	PC	Cold Spring Ranch
	East	R-1-8 and TH-5	Undeveloped
	West	R-2, R-3, TH-5	Gardner Point Subdivision and Undeveloped
Date of DRC Review	July 20, 2022		
Date of Planning Commission Review	August 4, 2022		
Assigned Planner	Sierra Pierson/Jacob Curtis		

REQUIRED ACTION

Planning Commission	Public hearing, review, and recommendation
City Council	Final approval

APPLICABLE DEVELOPMENT CODE REGULATIONS

Section 11.080. Preliminary Plat Approval Process.
The review and approval process for a Preliminary Subdivision Plat is identified in the appendix of this code, including review by the Development Review Committee, review and recommendation following a public hearing by the Planning Commission and review and approval by the City Council.

Section 11.100. Effect of Preliminary Subdivision Plat Approval.
A preliminary subdivision plat shall not authorize the development of land. After a preliminary subdivision plat has been approved by the City Council, the applicant may file an application for final subdivision plat approval.

Section 17.040. Development Standards.

All Planned Unit Developments shall conform to the following standards and requirements:

A. Qualifying Districts**.** Planned Unit Developments may be allowed at the discretion of the Planning Commission and City Council in all agricultural and residential districts within the City. To ensure that PUD projects are able to achieve the purposes stated in Section 17.010, and to ensure that projects are large enough to support a private homeowners association, property management agency, or corporation responsible for maintenance of open space, all Planned Unit Developments shall have a minimum area requirement of ten acres. Exceptions may be allowed for infill projects at the discretion of the Planning Commission and City Council. However, it is still the burden and responsibility of the applicant to demonstrate that the purposes of this chapter can be met, and that the adequate guarantees can be made for the maintenance of all required open space and common areas. For the purposes of this section, an infill project is defined as the development, or redevelopment within an existing developed area where street networks, utilities

and other infrastructure are already present as opposed to starting with raw land in a relatively undeveloped or pristine area.

A. Ownership. The area proposed for the Planned Unit Development shall be in one ownership, or if in several ownerships, the application for the permit shall be filed jointly by all of the owners of the property included in the plan.

B. Designer/Engineer. The plan for the Planned Unit Development shall be prepared by a designer, architect or civil engineer licensed to practice in the state of Utah.

C. Density. The overall project may not exceed the density allowed by the underlying zoning district plus any additional density bonus allowed at the discretion of the Planning Commission and City Council.

D. Calculation of Density. The number of dwelling units allowed in a Planned Unit Development is to be calculated in the following manner.

1. The following areas shall be subtracted from the gross site area to determine net usable area:
   (a) areas of steep slopes, wetlands, or areas below the high water level of Utah Lake as defined in Section 12.060-K of this Code;
   (b) the area of any perennial channels, measured from top of bank to top of bank of the flow channel;
   (c) existing public streets, or any areas of additional right of way required to comply with the Lehi City Master Transportation Plan; and
   (d) areas to be set aside for public buildings or institutional uses such as churches and schools.

2. Net usable site area is multiplied by the density allowed by the underlying zoning district as established in Table 05-040-A to identify the maximum number of allowed units.

3. Density for areas in the 100-year flood plain as shown on the FEMA Flood Insurance Rate Maps shall be calculated at a rate of one unit per five acres regardless of the density allowed by the underlying zone.

4. If the Planned Unit Development is located in more than one zoning district, the total allowed number of units shall be calculated by adding the number of units allowed by each zoning district. However, the dwelling units may be placed without regard to district boundaries, provided the total units do not exceed that allowed by the underlying zoning districts.

F. Density Bonus Amenities: The list below represents items for which a density bonus may be granted subject to Planning Commission and City Council approval. Other items not included in this list may warrant a density bonus on a case by case basis.

1. Active Recreation: master planned trails, swimming pools, sports courts, tennis courts, pickleball courts, splash pads, clubhouse, trails, pedestrian bridges, and other similar amenities beyond those required.

2. Pedestrian and Bicycle Enhancements: raised planters, bulb-outs or curb extensions, pedestrian plazas, additional bike lanes or facilities not already required.

3. Additional Open Space: beyond the required 10 percent.

4. Improvements to Master Planned Infrastructure: master planned roads, utilities, trails, property for civic buildings, or other similar items.

G. Lot Sizes. The dwellings may be situated in one building or buildings may be clustered. Individual lot sizes may be reduced below the requirements of the zone in which the development is located. The remaining land not within individual lots shall be set aside for parks, playgrounds, open space or other open areas. Setbacks may be reduced but shall be sufficient to allow for the installation of all required public utilities. No permanent structure shall be allowed in the public utility easement space. Public utility easements shall be free and clear of building footings, foundation walls, window wells, or any other permanent structure that does not meet utility clearance requirements. All buildings and

structures shall maintain a minimum five-foot setback from any public utility easement, water line easement, sewer easement, storm drain easement, power easement, detention easement, or any other utility easement in order to ensure property utility clearances are maintained.

H. Required Open Space. For all Planned Unit Developments, not less than ten percent of the gross area of the project site shall be set aside for the use of the occupants for parks, playgrounds, open space or other open areas. All areas required for vehicular access, parking areas, and land which is otherwise required to comply with the minimum yard requirements around buildings, shall not be included in computing the area required for parks, playgrounds or other open space areas.

I. Open Space Design.

1. The required open space shall be landscaped with sod and irrigation sprinklers and a minimum 25% of the proposed open space shall be water-wise landscaped as defined in Chapter 39 of this Code.

2. Trees shall be provided within the open space at a rate of ten trees per acre of provided open space. Deciduous trees shall be a minimum 2" caliper and coniferous trees shall be a minimum six feet in height.

3. Detention and retention basins shall not be counted toward meeting the minimum open space requirement. Open space design and location issues shall be kept separate and independent of drainage issues.

J. Location of Open Space. The location of open space conserved through a Planned Unit Development shall be consistent with the policies contained in the General Plan Parks, Open Space and Recreational Facilities Element. Required open space areas shall be well planned, walkable, and connected, not a collection of remnants. Where possible, units shall front onto the open space(s). Yard areas within lots shall not be counted toward meeting the minimum open space requirement.

K. Open Space Adjacent to Major Roads. Where a Planned Unit Development is required for projects adjacent to a master planned arterial or limited access collector road, the area between the property line/ROW line and the required decorative fence shall be enlarged and landscaped as part of the required open space. The enlarged parkway area shall be counted towards meeting the minimum open space requirement and shall include decorative fencing, street tree plantings and other applicable improvements required in the Lehi City Design Standards and Public Improvement Specifications Manual. The landscaped area may also include shrubs, rocks, flowerbeds and ground cover. Maintenance of the landscaped parkway shall be insured by the developer and owner by means of a property management agency or by establishing a private association or corporation responsible for such maintenance, which shall levy the cost thereof as an assessment on the property owners within the Planned Unit Development.

L. Utilities. All buildings shall be served by public sewer and water systems and shall conform to the requirements of the Lehi City Design Standards and Public Improvement Specifications.

M. Compatibility. Wherever the Planned Unit Development site shares a common property line with a lower density residential or agricultural district, then for that portion of the Planned Unit Development site the setback requirements of the adjacent or contiguous zoning district shall apply. For example, if the rear yards of units in a PUD share a common property line with a lower density residential district, then the rear yard of the PUD units shall be the same as the required rear yards of the adjacent lower density district.

N. Landscaping. All areas not covered by buildings, or by off-street car parking areas or driveways, shall be planted in lawn, trees and shrubs, or otherwise landscaped and maintained in accordance with an approved landscape plan. All required front yard and side yard areas which are adjacent to a public street shall not be used for automobile parking areas, except for permitted driveways, but shall be landscaped and maintained with lawns, trees and shrubs, or other landscape materials.

O. Design Standards and Conditions. Design standards and conditions of development approval in addition to those required by the underlying zoning district may be required as conditions of approval, by the Reviewing Departments, Planning Commission and City Council when deemed necessary to ensure that a Planned Unit Development will

be compatible with adjoining or nearby uses.

P. Parking. Developments shall provide adequate parking based on the requirements of Table 37.070. In addition to those requirements, developments with single-family detached units on lots with less than 50' of frontage shall provide guest parking at a rate of one space for every six dwelling units.

Section 37.040(E). Connectivity Standards – Residential Connectivity Standards.

2. Maximum Block Lengths. Maximum block lengths allowed shall be required based on the project density as identified on the following table of maximum block lengths:

Density	Block Length
0-2.5 DU/AC	1,000 ft. street and pedestrian block length
2.6-4 DU/AC	800 ft. street and pedestrian block length
4.1-6 DU/AC	600 ft. street and pedestrian block length
6.1+ DU/AC	600 ft. street block length and 400 ft. pedestrian block length

a. Increase in Block Length. The maximum allowed block length may be increased if the applicant provides clear and convincing evidence that it is impracticable to achieve due to:

i. road grades that exceed ten percent;

ii. Jordan River;

iii. Utah Lake;

iv. delineated wetlands;

v. other significant natural and historic features such as Dry Creek or the Waste Ditch drainage channel;

vi. existing adjacent development;

vii. rail corridors; or

viii. limited access roadways.

b. Increases in block length will be reviewed on a case-by-case basis and shall require positive recommendations from the reviewing departments and Planning Commission and approval by the City Council.

PROPERTY HISTORY

September 26, 2008 This property was included in the Holbrook Annexation.

January 28, 2020 This property was included in the Saratoga Springs Boundary Line Adjustment zone change, approving R-2 (Medium Density) and R-3 (High Density) on this property.

November 16, 2021 The City Council approved the River Point Concept Plan, which a portion includes this property.

April 12, 2022 The City Council approved the River Point Phase 1 Preliminary Subdivision.

REPORT ANALYSIS

The applicant is requesting approval of the River Point Phase 2 Preliminary Subdivision. The proposed development is requesting to be built as a Planned Unit Development (PUD). It would be at the discretion of the Planning Commission and City Council to determine if a PUD would be appropriate at this location. The first phase of the River Point development was approved on April 12, 2022 as a PUD. This report will describe the PUD requirements, layout of the development, and the DRC comments.

PUD Requirements

Planned Unit Development, or PUD, is a residential overlay that allows applicants to cluster development to provide varied lot sizes and open space. A PUD is allowed at the discretion of the Planning Commission and the City Council in all residential districts. The Planning Commission and City Council will need to determine if this site meets the requirements of the PUD.

The density for PUDs is determined based on the underlying zoning district. This plan shows the allowed amount of density, 257 units, based on the underlying zoning district of R-2 and R-3. The overall development shown in the concept plan does meet the minimum of 10% open space required. The open space for this phase will be included in future phases of the development.

Layout Requirements

The proposed development is for 257 units and would be a mixture of single-family lots and rear-load townhomes. The townhomes are shown to be fronting open space and public roads. The remainder of the property will consist of single-family homes of ranging sizes to provide variety throughout the subdivision. Roads will be connected to the Gardner Point and Cold Spring Ranch developments to provide connectivity throughout the subdivisions. This phase will also provide a trail connection from 3600 West that will run west and connect into the Gardner Point development to provide increased connectivity.

The applicant is requesting an exception to the maximum block length and connectivity requirements in the southern portion of the development for not connecting to Park Drive. Park Drive is a road stub from the Cold Spring Ranch Subdivision. The exception is being requested due to grade in the area. In the Development Code, grade is listed as a reason that an exception could be granted for not meeting connectivity requirements. The Planning Commission and City Council will need to determine if an exception is warranted in this situation.

DRC Comments

The DRC had 10 comments including the following:

1. Change the public streets stubbing into Cold Spring Ranch to private streets (keep same cross section) at the intersection and use a flared drive approach. Include required multi-family off-street parking.
2. An exception will be required for not connecting to Park Drive.

Please consider including all DRC comments as a part of the motion.

POSSIBLE MOTIONS AND FINDINGS

The City Council may move to approve or deny the proposed preliminary subdivision. Any motion should include findings. Possible findings include:

1. The proposed subdivision is consistent with the approved River Point Concept Plan.
2. The connectivity requirements exception to not connect to Park Drive is/is not warranted due to the grade in the area.

3. The proposed subdivision does/does not meet the requirements of the Planned Unit Development requirements in Chapter 17 of the Lehi City Development Code.
4. The proposed subdivision meets/does not meet the requirements of the Lehi City Development Code regarding subdivision approvals.
5. The proposed subdivision conforms/does not conform with the goals and policies of the General Plan.
6. Other findings based upon information presented at the public hearing.

PLANNING COMMISSION RECOMMENDATION

The Planning Commission reviewed the proposed preliminary subdivision on August 4, 2022. The minutes and motion from this meeting are as follows:

River Point Phase 2 Preliminary Subdivision
DRC Redline Comments

Edge Homes – requests preliminary subdivision review of River Point Phase 2, a 257-unit residential development located at 1200 North 3600 West.

DRC Members Present: Glade Kirkham, Garion Rowett, Greg Allred, Kim Struthers, Gary Smith, Ross Dinsdale
Representatives of the Applicant Present: Brady, Brandon, Brandon
Date of Plans Reviewed: **7/12/22**
Time Start: 1:34 PM
Time End: 1:54 PM

DRC REDLINE COMMENTS:
Glade – Power:
1. Easement space is incorrect at 1040 N. 3890 W.
2. Include Power Plan (by Active Power)

Garion – Fire: No comments
Greg – Water/Sewer:
3. Should be a 10' trail ? Not 10.7' ?
4. Existing 12" SD was installed in Canvasback Drive to intersection of 930 North. This line will have to be removed and re-installed as you have it shown. (Flowing North)

Trent – Parks:
5. Add landscaping for park strip all along 3600 W behind double fronting lots to be maintained by the HOA. Provide fence or landscape barrier behind where the east/west trail tees in.

Gary – Building/Inspections: No comments
Jacob – Public Works:
6. At time of final, LTSWMP will be required.

Ross – Engineering: No comments
Luke- Traffic: No comments
Kim – Planning:
7. Change the public streets stubbing into Cold Spring Ranch to private streets (keep same cross section) at the intersection and use a flared drive approach. Include required multi-family off-street parking.
8. Recommend one other style of townhome for this project to create some innovation and product/architectural diversity in the area.
9. Provide names for "Named Street"(s).
10. An exception will be required for not connecting to Park Drive.

GENERAL COMMENTS:
1. RMP Easement cannot be vacated until Phase 1 work including power service to the Saratoga well has been completed.
2. Single-family home elevations will also need to meet the requirements of Chapter 37 (Section 37.050).
3. Locate blow offs at a property line, provide mainline valves in the valve cluster. (We can address this at final)
4. Eliminate notes referencing connecting to existing water/PI (Notes 7 & 8)

THIS ITEM WILL BE SCHEDULED FOR PLANNING COMMISSION ON AUGUST 4TH (NEEDS ENVELOPES BEFORE SCHEDULING)

Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

Dear Lehi City,

The following narrative is intended to address the issues outlined in the Application for Preliminary Subdivision Plat Application for the Riverpoint Subdivision

Following the Concept Plan Approval by City Council, Edge Homes is excited for the opportunity to present Lehi City with our second Preliminary Subdivision Application for Riverpoint.

We were given many great suggestions from the planning department, Planning Commission, and City Council during the Concept Plan Approval process. We believe these ideas will help enhance the look and feel of this community to both those passing through and those who will call it home. We appreciate the input and expertise and are pleased to introduce these elements into Riverpoint.

The vision for this community is to add to the existing area currently developed or under development. The location and design of the green byways, community gathering areas, and future public parks and open space are a result of many productive meetings with Lehi City Planning and Engineering.

This second submittal lies in current Lehi city boundaries and will consist of 173 single family lots and 84 town homes.

This full buildout of this project will be substantial and will continue to serve the demand of the residents looking for all the conveniences Lehi has to offer. We are excited to continue to provide homes and communities to Lehi City and look forward to working through this project together.

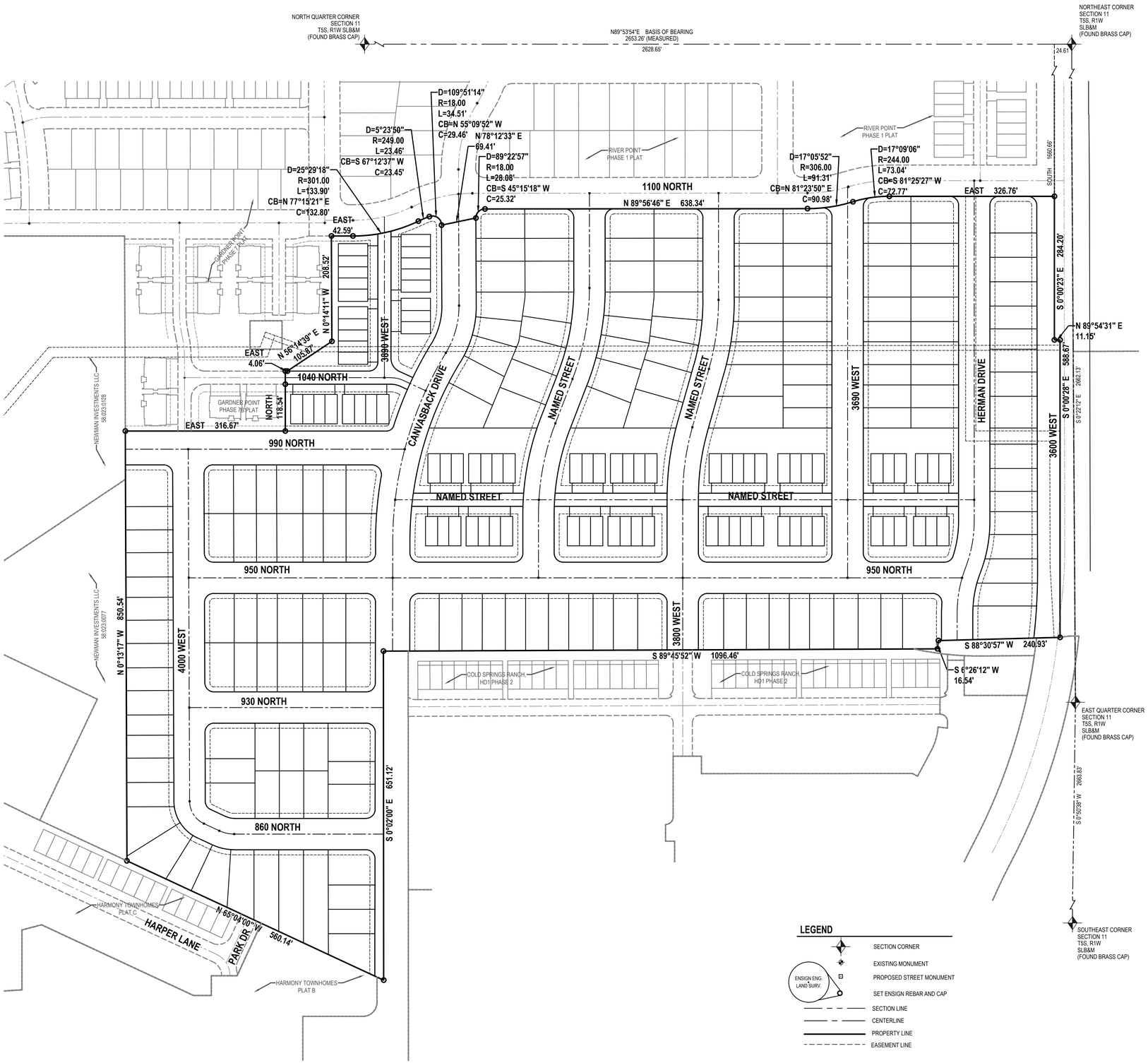
Respectfully,

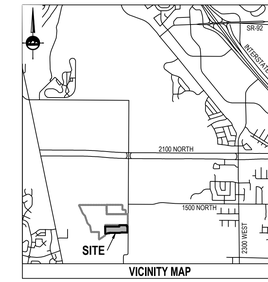
Brandon Parr

Edge Homes

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

811 Know what's below. Call before you dig.





VICINITY MAP

LEGEND

- SECTION CORNER
- EXISTING MONUMENT
- PROPOSED STREET MONUMENT
- SET ENSIGN REBAR AND CAP (ENSIGN ENG. LAND SURV.)
- SECTION LINE
- CENTERLINE
- PROPERTY LINE
- EASEMENT LINE

Boundary Description

A parcel of land situate in the Northeast Quarter of Section 11, Township 5 South, Range 1 West, Salt Lake Base and Meridian, being more particularly described as follows:

Beginning at a point being South 89°53'54" West 24.61 feet and South 1,660.66 feet from the Northeast Corner of Section 11, Township 5 South, Range 1 West, Salt Lake Base and Meridian; and running

thence South 00°00'23" East 284.20 feet;
thence North 89°54'31" East 11.15 feet;
thence South 00°00'28" East 588.67 feet;
thence South 88°30'57" West 240.93 feet;
thence South 06°26'12" West 16.54 feet;
thence South 89°45'52" West 1,096.46 feet;
thence South 00°02'00" East 651.12 feet;
thence North 65°04'00" West 560.14 feet;
thence North 00°13'17" West 850.54 feet;
thence East 316.67 feet;
thence North 118.54 feet;
thence East 4.06 feet;
thence North 56°14'39" East 105.87 feet;
thence North 00°14'11" West 208.52 feet;
thence East 42.59 feet;
thence Northeasterly 133.90 feet along the arc of a 301.00 foot radius curve to the left (center bears North and the chord bears North 77°15'21" East 132.80 feet with a central angle of 25°29'18");
thence Northeasterly 23.46 feet along the arc of a 249.00 foot radius curve to the right (center bears South 25°29'18" East and the chord bears North 67°12'37" East 23.45 feet with a central angle of 05°23'50");
thence Southeasterly 34.51 feet along the arc of a 18.00 foot radius curve to the right (center bears South 20°05'28" East and the chord bears South 55°09'52" East 29.46 feet with a central angle of 109°51'14");
thence North 78°12'33" East 69.41 feet;
thence Northeasterly 28.08 feet along the arc of a 18.00 foot radius curve to the right (center bears South 89°26'11" East and the chord bears North 45°15'18" East 25.32 feet with a central angle of 89°22'57");
thence North 89°56'46" East 638.34 feet;
thence Northeasterly 91.31 feet along the arc of a 306.00 foot radius curve to the left (center bears North 00°03'14" West and the chord bears North 81°23'50" East 90.98 feet with a central angle of 17°05'52");
thence Northeasterly 73.04 feet along the arc of a 244.00 foot radius curve to the right (center bears South 17°09'06" East and the chord bears North 81°25'27" East 72.77 feet with a central angle of 17°09'06");
thence East 326.76 feet to the point of beginning.

Contains 1,713,205 Square Feet or 39.330 Acres and 173 Lots and 84 Units

NOTES
1. BRASS PINS TO BE PLACED AT THE TOP BACK OF CURB AT EACH PROJECTED PROPERTY LINE.
2. STORM DRAIN DETENTION CANNOT BE MODIFIED WITHOUT PERMISSION FROM THE LEHI CITY ENGINEER.
3. THIS AREA IS SUBJECT TO THE NORMAL EVERYDAY SOUNDS, ODORS, SIGHTS, FACILITIES AND ASPECTS ASSOCIATED WITH AN AGRICULTURAL LIFESTYLE. RESIDENTS SHOULD ALSO RECOGNIZE THE RISKS INHERENT WITH LIVESTOCK.
4. COMMON SPACE AREAS AND PRIVATE STREETS TO BE MAINTAINED BY THE HOME OWNERS ASSOCIATION.
5. LAND DRAIN LATERALS ARE NOT REQUIRED FOR THE PROJECT AS STATED IN THE LETTER PROVIDED BY INTERMOUNTAIN GEOENVIRONMENTAL SERVICES, INC. AND DATED MAY 1, 2018.
6. ALL PROJECT AMENITIES INCLUDING CLUBHOUSE, TOT LOT, SPORT COURT, BENCHES, AND TRAILS WITHIN COMMON AREAS WILL BEGIN CONSTRUCTION AT 60% OF BUILDING PERMITS ISSUED FOR THE OVERALL PROJECT AND BE COMPLETED BY 80% OF BUILDING PERMITS ISSUED.

RIGHT TO FARM:
THIS AREA IS SUBJECT TO THE NORMAL, EVERYDAY SOUNDS, ODORS, SIGHTS, EQUIPMENT, FACILITIES, AND ANY OTHER ASPECTS ASSOCIATED WITH AGRICULTURAL LIFESTYLE. FUTURE RESIDENTS SHOULD ALSO RECOGNIZE THE RISK INHERENT WITH LIVESTOCK.

OWNER
EDGE HOMES UTAH, LLC
13702 S. 200 W. B12
DRAPER, UTAH 84020
801-494-0150

NORTH

HORIZONTAL GRAPHIC SCALE
100 0 50 100 200
(IN FEET)
HORZ: 1 inch = 100 ft.

ENSIGN
THE STANDARD IN ENGINEERING

SALT LAKE CITY
45 W. 10000 S., Suite 500
Sandy, UT 84070
Phone: 801.255.0529

LAYTON
Phone: 801.547.1100

TOOELE
Phone: 435.843.3590

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.896.2983

WWW.ENSIGNENG.COM

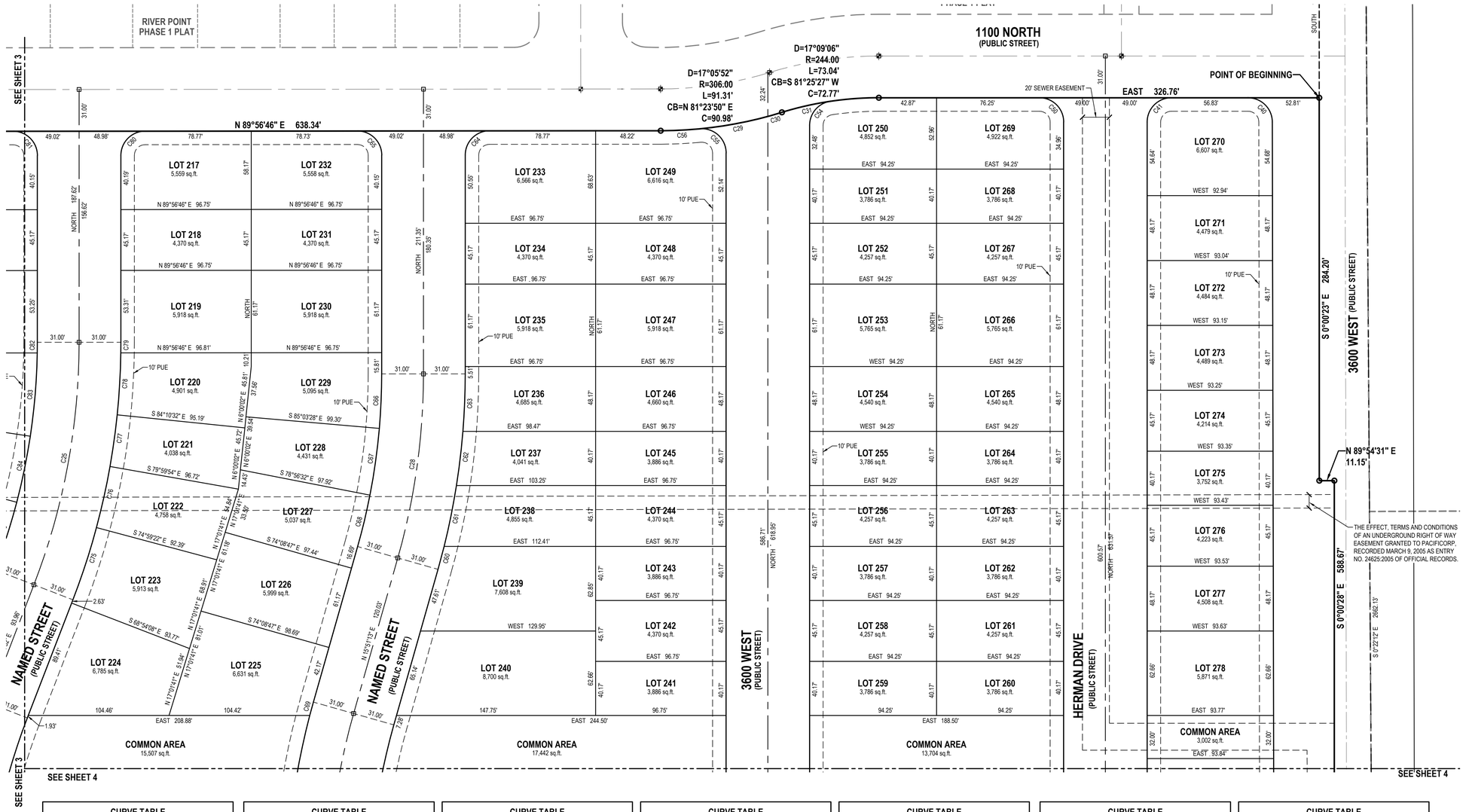
FOR:
EDGE HOMES
13702 S. 200 W. B12
DRAPER, UTAH 84020
CONTACT:
BRANDON PARR
PHONE: 801-494-0150

RIVER POINT PHASE 2 PRELIMINARY PLAT
A RESIDENTIAL PUD SUBDIVISION
1200 NORTH 3600 WEST
LEHI, UTAH

PRELIMINARY PLAT

PROJECT NUMBER 8069U	PRINT DATE 7/12/22
DRAWN BY S. LEWIS	CHECKED BY P. HARRIS
PROJECT MANAGER B. MORRIS	

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.



LEGEND

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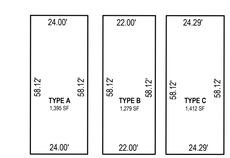
- EASEMENT LINE
- PRIVATE AREA
- LIMITED COMMON AREA
- COMMON AREA



TYPICAL TOWNHOUSE PAD DIMENSIONS

HORIZONTAL GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
HORZ: 1 inch = 40 ft.

OWNER
EDGE HOMES UTAH, LLC
13702 S. 200 W. B12
DRAPER, UTAH 84020
801-494-0150

CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C1	250.00'	92.31'	21°09'20"	N10°34'40"E	91.79'
C2	250.00'	78.95'	18°05'41"	N9°02'50"E	78.63'
C3	250.00'	13.36'	3°03'39"	N19°37'30"E	13.35'
C4	250.00'	22.38'	5°07'43"	S18°35'29"W	22.37'
C5	250.00'	69.93'	16°01'37"	S8°00'49"W	69.70'
C6	250.00'	53.18'	12°11'14"	S9°56'00"W	53.08'
C7	250.00'	16.75'	3°50'23"	S1°55'12"W	16.75'
C8	49.00'	55.46'	64°50'40"	S32°38'37"E	52.54'
C9	70.00'	30.46'	24°56'03"	S77°31'58"E	30.22'
C10	18.00'	28.20'	89°46'43"	N45°06'38"W	25.41'
C11	716.00'	81.46'	6°31'08"	S3°22'00"W	81.42'
C12	716.00'	101.93'	8°09'24"	N10°42'16"E	101.85'
C13	716.00'	61.12'	4°53'27"	S12°20'15"W	61.10'
C14	716.00'	40.81'	3°15'57"	S8°15'32"W	40.81'
C15	716.00'	123.24'	9°51'44"	S19°42'50"W	123.09'
C16	716.00'	84.80'	6°47'09"	S28°02'17"W	84.75'
C17	716.00'	85.70'	6°51'29"	S21°12'58"W	85.65'
C18	716.00'	37.54'	3°00'15"	S16°17'06"W	37.54'
C19	178.00'	98.38'	31°40'06"	N15°35'48"E	97.14'
C20	60.00'	25.74'	24°34'43"	N77°42'38"W	25.54'

CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C21	60.00'	13.65'	13°02'12"	N83°28'54"W	13.62'
C22	60.00'	12.09'	11°32'31"	N71°11'32"W	12.07'
C23	301.00'	13.23'	2°31'06"	N79°18'50"E	13.23'
C24	301.00'	13.35'	2°32'32"	N76°47'01"E	13.35'
C25	500.00'	184.11'	21°05'52"	N10°32'56"E	183.07'
C26	500.00'	155.56'	17°49'33"	S12°11'06"W	154.93'
C27	500.00'	138.35'	15°51'13"	S7°55'37"W	137.91'
C28	500.00'	138.35'	15°51'13"	N7°55'37"E	137.91'
C29	306.00'	51.60'	9°39'43"	N79°42'41"E	51.54'
C30	306.00'	10.85'	2°01'55"	N73°51'52"E	10.85'
C31	244.00'	36.87'	8°39'29"	S77°10'39"W	36.84'
C32	682.00'	13.08'	1°05'57"	S6°24'30"W	13.08'
C33	682.00'	13.11'	1°06'06"	S7°30'32"W	13.11'
C34	531.00'	13.01'	1°24'14"	S2°22'44"W	13.01'
C35	531.00'	13.03'	1°24'21"	S3°47'01"W	13.03'
C36	469.00'	13.04'	1°35'34"	S4°17'05"W	13.04'
C37	469.00'	13.01'	1°35'24"	S2°41'37"W	13.01'
C38	469.00'	6.05'	0°44'19"	S0°22'10"W	6.05'
C39	531.00'	6.05'	0°39'09"	S0°19'34"W	6.05'
C40	18.00'	28.24'	89°53'27"	N45°03'41"W	25.43'

CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C41	18.00'	28.27'	90°00'00"	S45°00'00"W	25.46'
C42	1148.00'	23.79'	1°11'14"	N0°28'56"E	23.78'
C43	1148.00'	45.21'	2°15'22"	N2°12'14"E	45.20'
C44	219.00'	13.35'	3°29'35"	S1°44'47"W	13.35'
C45	219.00'	45.88'	12°00'13"	S9°29'41"W	45.80'
C46	219.00'	21.63'	5°39'32"	S18°19'34"W	21.62'
C47	281.00'	29.11'	5°56'09"	N18°11'15"E	29.10'
C48	281.00'	49.01'	9°59'35"	N10°13'23"E	48.95'
C49	281.00'	25.63'	5°13'36"	N2°36'48"E	25.62'
C50	18.00'	28.27'	90°00'00"	N45°00'00"W	25.46'
C51	219.00'	69.16'	18°05'41"	N9°02'50"E	68.88'
C52	18.00'	22.59'	71°54'19"	N54°02'50"E	21.14'
C53	18.00'	28.27'	90°00'00"	S45°00'00"E	25.46'
C54	18.00'	25.61'	81°30'23"	S40°45'12"W	23.50'
C55	18.00'	29.99'	95°27'27"	N47°43'44"W	26.64'
C56	306.00'	28.86'	5°24'13"	N87°14'39"E	28.85'
C57	18.00'	28.27'	90°00'00"	N45°00'00"E	25.46'
C58	18.00'	28.27'	90°00'00"	S45°00'00"E	25.46'
C59	469.00'	123.73'	15°06'54"	S8°17'46"W	123.37'
C60	531.00'	17.65'	1°54'16"	N14°54'05"E	17.65'

CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C61	531.00'	46.10'	4°58'29"	N11°27'43"E	46.09'
C62	531.00'	40.46'	4°21'58"	N6°47'29"E	40.45'
C63	531.00'	42.71'	4°36'30"	N2°18'15"E	42.70'
C64	18.00'	28.26'	89°56'46"	S44°58'23"W	25.44'
C65	18.00'	28.29'	90°03'14"	N45°01'37"W	25.47'
C66	469.00'	40.46'	4°56'32"	N2°28'16"E	40.44'
C67	469.00'	50.06'	6°06'55"	N8°00'00"E	50.03'
C68	469.00'	39.26'	4°47'45"	N13°27'20"E	39.25'
C69	531.00'	10.29'	1°06'39"	S15°17'54"W	10.29'
C70	531.00'	130.59'	14°05'26"	S7°41'51"W	130.26'
C71	18.00'	28.27'	90°00'00"	N45°00'00"E	25.46'
C72	18.00'	28.27'	90°00'00"	S45°00'00"E	25.46'
C73	469.00'	15.54'	1°53'55"	S0°56'57"W	15.54'
C74	469.00'	131.11'	16°01'00"	S13°05'22"W	130.68'
C75	531.00'	56.41'	6°05'14"	N18°03'15"E	56.39'
C76	531.00'	46.42'	5°00'32"	N12°30'22"E	46.41'
C77	531.00'	38.71'	4°10'37"	N7°54'47"E	38.70'
C78	531.00'	46.12'	4°58'34"	N3°20'11"E	46.10'
C79	531.00'	7.86'	0°50'54"	N0°25'27"E	7.86'
C80	18.00'	28.26'	89°56'46"	S44°58'23"W	25.44'

CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C81	18.00'	28.29'	90°03'19"	N45°01'37"W	25.47'
C82	469.00'	7.92'	0°58'03"	N0°29'02"E	7.92'
C83	469.00'	62.07'	7°34'59"	N4°45'33"E	62.03'
C84	469.00'	50.06'	6°06'55"	N11°36'30"E	50.03'
C85	469.00'	52.65'	6°25'55"	N17°52'55"E	52.62'
C86	531.00'	21.83'	2°21'18"	S19°55'13"W	21.82'
C87	531.00'	132.12'	14°15'22"	S11°36'53"W	131.78'
C88	531.00'	15.54'	1°40'36"	S0°50'18"W	15.54'
C89	18.00'	28.27'	90°00'00"	N45°00'00"E	25.46'
C90	18.00'	28.31'	90°06'16"	S44°56'52"E	25.48'
C91	682.00'	68.46'	5°45'06"	S2°58'59"W	68.43'
C92	682.00'	133.05'	11°10'38"	S13°38'54"W	132.83'
C93	682.00'	98.02'	8°14'06"	S23°21'16"W	97.94'
C94	682.00'	47.12'	3°57'32"	S29°27'05"W	47.11'
C95	212.00'	14.22'	3°50'35"	N29°30'34"E	14.22'
C96	212.00'	44.02'	11°53'47"	N21°38'23"E	43.94'
C97	212.00'	36.71'	9°55'14"	N10°43'53"E	36.66'
C98	212.00'	22.23'	6°00'30"	N2°46'00"E	22.22'
C99	144.00'	79.59'	31°40'06"	N15°35'48"E	78.58'
C100	750.00'	75.86'	5°47'44"	S28°31'59"W	75.83'

CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C101	28.00'	31.97'	65°25'17"	S32°42'38"E	30.26'
C102	18.00'	0.05'	0°09'31"	N0°04'46"E	0.05'
C103	18.00'	28.22'	89°50'29"	N45°04'46"E	25.42'
C104	47.00'	20.16'	24°34'43"	N77°42'38"W	20.01'
C105	750.00'	76.73'	5°51'43"	S20°43'05"W	76.70'
C106	15.00'	18.91'	72°12'47"	N53°53'37"E	17.68'
C107	80.00'	10.53'	7°32'25"	S3°59'30"E	10.52'
C108	19.50'	34.00'	99°53'31"	N40°03'15"W	29.85'
C109	750.00'	74.06'	5°39'28"	S7°03'47"W	74.03'
C110	750.00'	54.02'	4°07'37"	S2°10'14"W	54.01'
C111	18.00'	28.24'	89°53'44"	N45°03'08"E	25.43'
C112	80.00'	34.07'	24°24'02"	S19°57'43"E	33.81'
C113	281.00'	18.83'	3°50'23"	S1°55'12"W	18.83'
C114	18.00'	29.48'	93°50'23"	N43°04'48"W	26.29'
C115	18.00'	28.27'	90°00'00"	S45°00'00"W	25.46'
C116	18.00'	28.27'	90°00'00"	N45°00'00"W	25.46'
C117	18.00'	28.24'	89°53'44"	S45°03'08"W	25.43'
C118	80.00'	36.15'	25°53'34"	S45°06'31"E	35.85'
C119	80.00'	9.79'	7°00'39"	S61°33'38"E	9.78'
C120	101.00'	37.25'	21°07'48"	S75°37'51"E	37.04'

CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C121	101.00'	6.71'	3°48'15"	S88°05'52"E	6.70'
C122	18.00'	28.34'	90°13'17"	S44°53'21"W	25.50'
C123	18.00'	28.20'	89°46'43"	S45°06'38"E	25.41'
C124	18.00'	28.34'	90°13'17"	S44°53'22"W	25.50'
C125	18.00'	28.31'	90°06'16"	N44°56'52"W	25.48'
C126	18.00'	28.24'	89°53'44"	N45°03'08"E	25.43'
C127	18.00'	28.20'	89°46'43"	S45°06'38"E	25.41'
C128	18.00'	28.34'	90°13'17"	S44°53'22"W	25.50'
C129	18.00'	28.31'	90°06'16"	N44°56'52"W	25.48'
C130	18.00'	28.24'	89°53'44"	N45°03'08"E	25.43'
C131	39.00'	16.97'	24°56'03"	S77°31'58"E	16.84'
C132	301.00'	57.79'	11°00'03"	N70°00'43"E	57.70'
C133	301.00'	49.52'	9°25'37"	N85°17'11"E	49.47'
C134	1148.00'	63.77'	3°10'58"	N4°55'24"E	63.76'
C135	18.00'	20.37'	64°50'40"	S32°38'37"E	19.30'
C136	18.00'	28.31'	90°06'16"	N44°56'52"W	25.48'

ENSIGN
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WWW.ENSIGNENG.COM

FOR:
EDGE HOMES
13702 S. 200 W. B12
DRAPER, UTAH 84020
CONTACT:
BRANDON PARR
PHONE: 801-494-0150

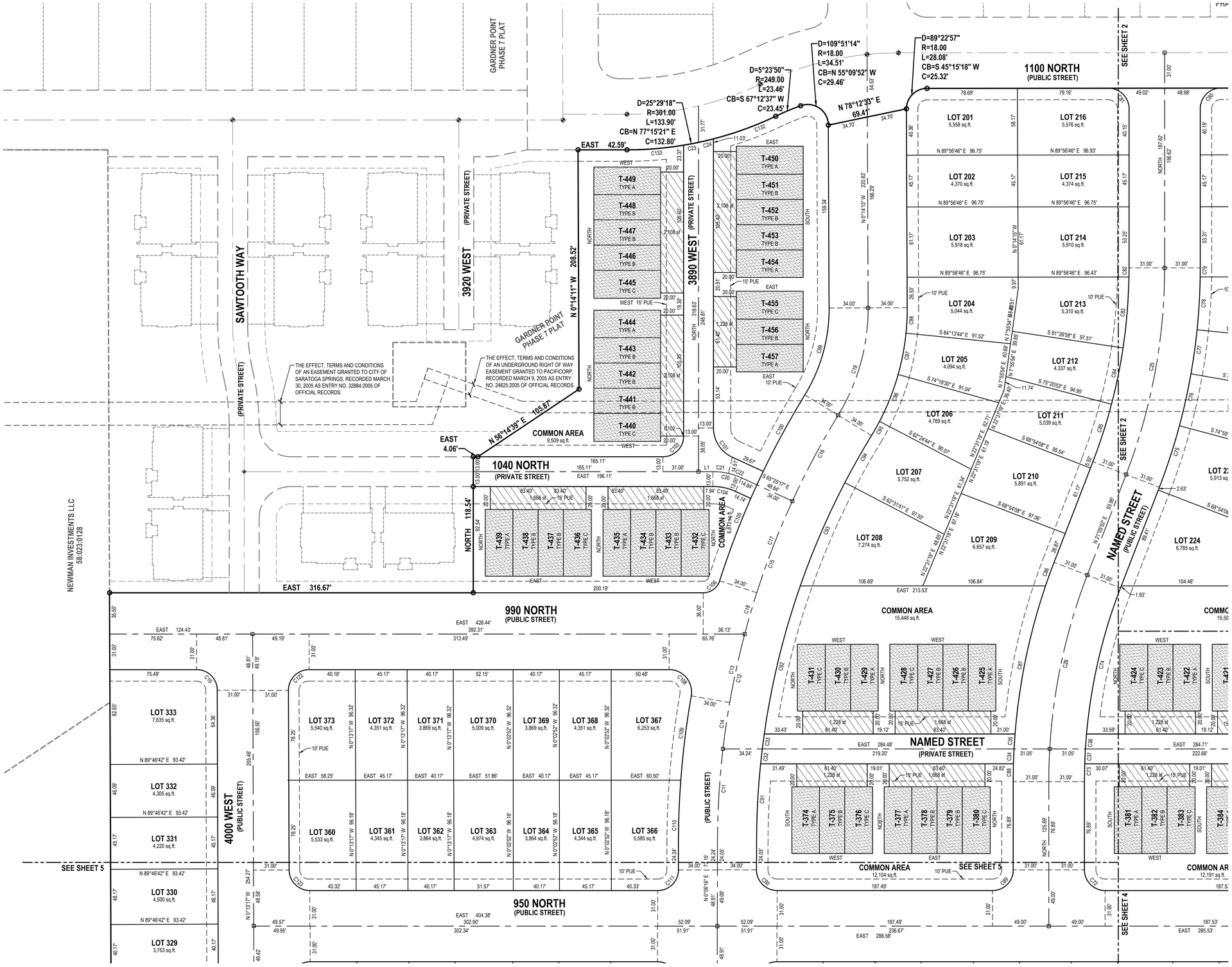
RIVER POINT PHASE 2 PRELIMINARY PLAT
A RESIDENTIAL PUD SUBDIVISION
1200 NORTH 3600 WEST
LEHI, UTAH

PRELIMINARY PLAT

PROJECT NUMBER 8069U	PRINT DATE 7/12/22
DRAWN BY S. LEWIS	CHECKED BY P. HARRIS
PROJECT MANAGER B. MORRIS	

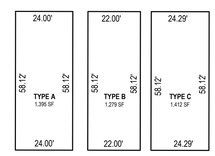
CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

811 Know what's below. Call before you dig.



LEGEND

- SECTION CORNER
- EXISTING MONUMENT
- PROPOSED STREET MONUMENT
- SET ENSIGN REBAR AND CAP (ENSIGN ENG. LAND SURV.)
- SECTION LINE
- CENTERLINE
- PROPERTY LINE
- EASEMENT LINE
- PRIVATE AREA
- LIMITED COMMON AREA
- COMMON AREA



TYPICAL TOWNHOUSE PAD DIMENSIONS

HORIZONTAL GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
HORZ: 1 inch = 40 ft.

OWNER
EDGE HOMES UTAH, LLC
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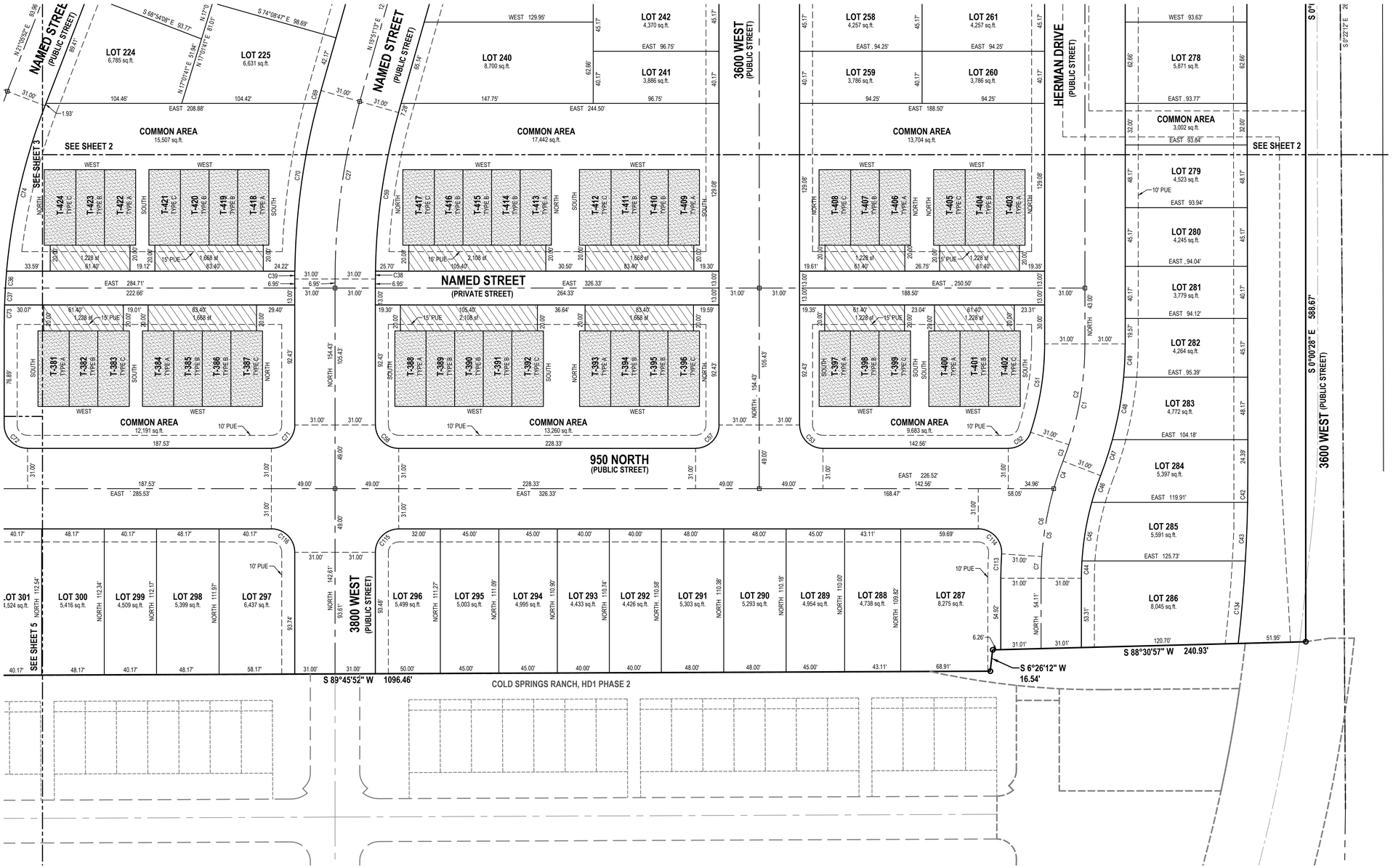

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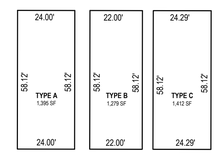

TYPICAL TOWNHOUSE PAD DIMENSIONS

NORTH

HORIZONTAL GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
HORZ: 1 inch = 40 ft.

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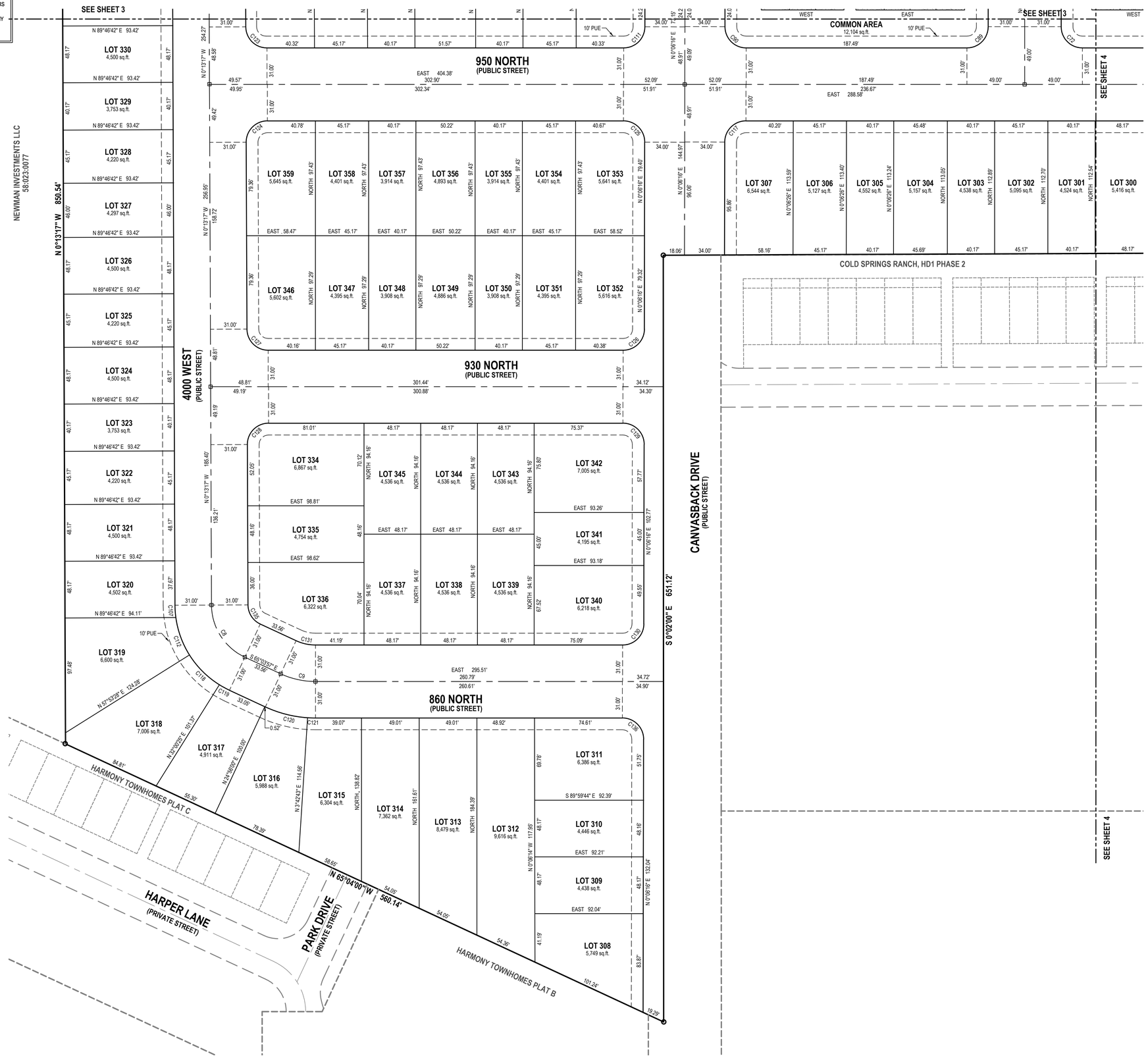

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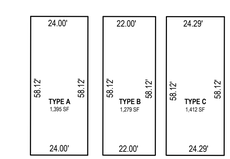

TYPICAL TOWNHOUSE PAD DIMENSIONS

NORTH

HORIZONTAL GRAPHIC SCALE

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(IN FEET)
HORZ: 1 inch = 40 ft.

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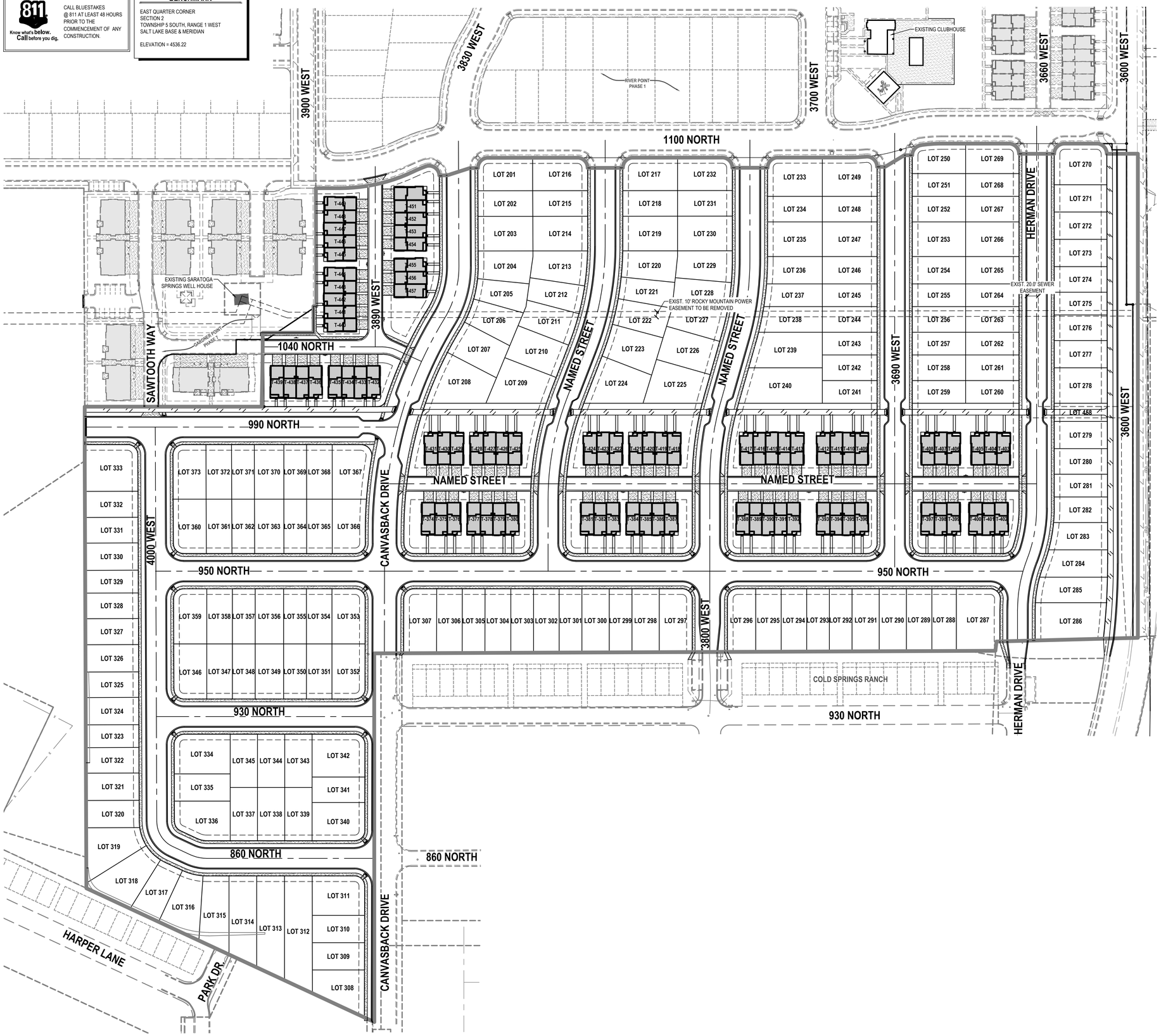
BENCHMARK

EAST QUARTER CORNER
SECTION 2
TOWNSHIP 5 SOUTH, RANGE 1 WEST
SALT LAKE BASE & MERIDIAN

ELEVATION = 4536.22



GENERAL NOTES

1. ALL WORK TO COMPLY WITH LEHI CITY'S STANDARDS AND SPECIFICATIONS.
2. ALL IMPROVEMENTS MUST COMPLY WITH ADA STANDARDS AND RECOMMENDATIONS.
3. SEE LANDSCAPE/ARCHITECTURAL PLANS FOR CONCRETE MATERIAL, COLOR, FINISH, AND SCORE PATTERNS THROUGHOUT SITE.
4. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITION OF THE M.U.T.C.D. (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
5. ALL SURFACE IMPROVEMENTS DISTURBED BY CONSTRUCTION SHALL BE RESTORED OR REPLACED, INCLUDING TREES AND DECORATIVE SHRUBS, SOD, FENCES, WALLS AND STRUCTURES, WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN ON THE CONTRACT DOCUMENTS.
6. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR ASPHALT.
7. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.

TYPE OF DEVELOPMENT:
RESIDENTIAL PUD

UNIT COUNT

SINGLE FAMILY RESIDENTIAL = 173
TOWNHOMES = 84
TOTAL UNITS = 257
UNITS PER ACRE = 6.55

THIS AREA IS SUBJECT TO THE NORMAL EVERYDAY SOUNDS, ODORS, SIGHTS, FACILITIES AND ASPECTS ASSOCIATED WITH AN AGRICULTURAL LIFESTYLE.RESIDENTS SHOULD ALSO RECOGNIZE THE RISKS INHERENT WITH LIVESTOCK

PARKING DATA TABLE

SURFACE (GUEST) PARKING	0
HANDICAP-ACCESSIBLE STALLS	0
TOWNHOME GARAGE PARKING	168
TOWNHOME DRIVE PARKING	168
TOTAL PARKING PROVIDED	336

HORIZONTAL GRAPHIC SCALE
80 0 40 80 160
(IN FEET)
HORZ: 1 inch = 80 ft.

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RIVER POINT PHASE 2
A RESIDENTIAL PUD SUBDIVISION
1200 NORTH 3600 WEST
LEHI, UTAH

REGISTERED PROFESSIONAL ENGINEER
07/12/2022
5150016-2202
BRADEN D. MORRIS
STATE OF UTAH

OVERALL SITE PLAN

PROJECT NUMBER 8069U	PRINT DATE 7/12/22
DRAWN BY G. OFFERMANN	CHECKED BY M. BUDGE
PROJECT MANAGER B. MORRIS	

C-200

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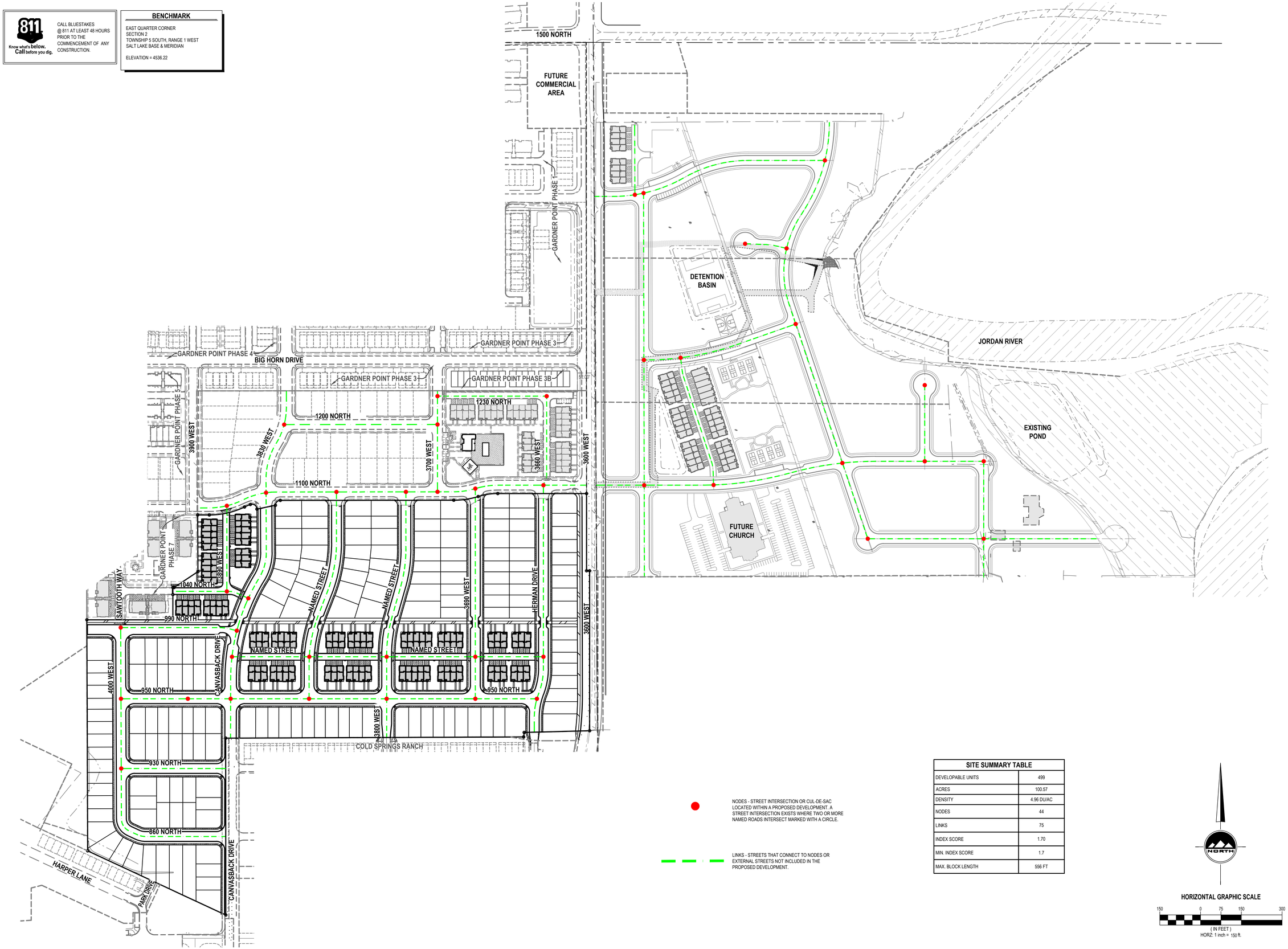
BENCHMARK

EAST QUARTER CORNER
SECTION 2
TOWNSHIP 5 SOUTH, RANGE 1 WEST
SALT LAKE BASE & MERIDIAN

ELEVATION = 4536.22



NODES - STREET INTERSECTION OR CUL-DE-SAC LOCATED WITHIN A PROPOSED DEVELOPMENT. A STREET INTERSECTION EXISTS WHERE TWO OR MORE NAMED ROADS INTERSECT MARKED WITH A CIRCLE.

LINKS - STREETS THAT CONNECT TO NODES OR EXTERNAL STREETS NOT INCLUDED IN THE PROPOSED DEVELOPMENT.

SITE SUMMARY TABLE

DEVELOPABLE UNITS	499
ACRES	100.57
DENSITY	4.96 DU/AC
NODES	44
LINKS	75
INDEX SCORE	1.70
MIN. INDEX SCORE	1.7
MAX. BLOCK LENGTH	556 FT

NORTH

HORIZONTAL GRAPHIC SCALE

150 0 75 150 300

(IN FEET)
HORZ: 1 inch = 150 ft.

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FOR:
EDGE HOMES
13702 S. 200 W. B12
DRAPER, UTAH 84020

CONTACT:
BRANDON PARR
PHONE: 801-494-0150

RIVER POINT PHASE 2
A RESIDENTIAL PUD SUBDIVISION
1200 NORTH 3600 WEST
LEHI, UTAH

REGISTERED PROFESSIONAL ENGINEER
07/12/2022
5150016-2202
BRADEN D. MORRIS
STATE OF UTAH

CIRCULATION PLAN

PROJECT NUMBER 8069U
PRINT DATE 7/12/22
DRAWN BY G. OFFERMANN
CHECKED BY M. BUDGE
PROJECT MANAGER B. MORRIS

C-200A

LANDSCAPE PLAN SPECIFICATIONS

PART 1 - GENERAL

1.1 SUMMARY

A. This section includes landscape procedures for the Project including all labor, materials, and installation necessary, but not limited to, the following:

1. Site Conditions
2. Guarantees
3. Maintenance
4. Soil Amendments
5. Fine Grading
6. Landscape Edging
7. Furnish and Installing Plant
8. Turf Planting
9. Weed Barrier

1.2 SITE CONDITIONS

A. Examination: Before submitting a Bid, each Contractor shall carefully examine the Contract Documents; shall visit the site of the Work; shall fully inform themselves as to all existing conditions and limitations; and shall include in the Bid the cost of all items required by the Contract Documents are at a variance with the applicable laws, building codes, rules, regulations, or contain obvious erroneous or uncoordinated information, the Contractor shall promptly notify the Project Representative and the necessary changes shall be accomplished by Addendum.

B. Protection: Contractor to conduct the Work in such a manner to protect all existing underground utilities or structures. Contractor to repair or replace any damaged utility or structure using identical materials to match existing at no expense to the Owner.

C. Irrigation System: Do not begin planting until the irrigation system is completely installed, is adjusted for full coverage and is completely operational.

1.3 PERMITS

A. Blue Stake/ Dig Line: When digging is required, "Blue Stake" or "Dig Line" the work site and identify the approximate location of all known underground utilities or structures.

1.4 PLANT DELIVERY, QUALITY, AND AVAILABILITY

A. Unauthorized substitutions will not be accepted. If proof is submitted that specific plants or plant sizes are unobtainable, written substitution requests will be considered for the nearest equivalent plant or size. All substitution requests must be made in writing and preferably before the bid due date.

1.5 FINAL INSPECTION

A. All plants will be inspected at the time of Final Inspection prior to receiving a Landscape Substantial Completion for conformance to specified planting procedures, and for general appearance and vitality. Any plant not approved by the Project Representative will be rejected and replaced immediately.

1.6 LANDSCAPE SUBSTANTIAL COMPLETION

A. A Substantial Completion Certificate will only be issued by the Project Representative for "landscape and irrigation" in their entirety. Substantial Completion will not be proportioned to be designated areas of a project.

1.7 MAINTENANCE

A. Plant Material: The Contractor is responsible to maintain all planted materials in a healthy and growing condition for 30 days after receiving a Landscape Substantial Completion at which time the Guarantee period commences. This maintenance is to include mowing, weeding, cultivating, fertilizing, monitoring water schedules, controlling insects and diseases, re-guying and staking, and all other operations of care necessary for the promotion of root growth and plant life so that all plants are in a condition satisfactory at the end of the guarantee period. The Contractor shall be held responsible for failure to monitor watering operations and shall replace any and all plant material that is lost due to improper application of water.

1.8 GUARANTEE

A. Guarantee: A guarantee period of one year shall begin from end of maintenance period and final acceptance for trees, shrubs, and ground covers. All plants shall grow and be healthy for the guarantee period and trees shall live and grow in acceptable upright position. Any plant not alive, in poor health, or in poor condition at the end of the guarantee period will be replaced immediately. Any plant will only need to be replaced once during the guarantee period. Contractor to provide documentation showing where each plant to be replaced is located. Any outside factors, such as vandalism or lack of maintenance on the part of the Owner, shall not be part of the guarantee

PART II - PRODUCTS

2.1 LANDSCAPE MATERIALS

A. Tree Staking: All trees shall be staked for one year warranty period. All trees not plumb shall be replaced. Staked trees shall use vinyl tree ties and tree stakes two (2) inch by two (2) by eight (8) foot common pine stakes used as shown on the details.

B. Tree Wrap: Tree wrap is not to be used.

C. Mulch/Rock: See Plans. All planter beds to receive a minimum 3" layer for trees, shrubs, and perennials and 1" for groundcovers.

D. Weed Barrier: DeWitt 5 oz. weed barrier fabric. Manufactured by DeWitt Company, dewittcompany.com or approved equal.

E. Tree, Shrub, and Grass Backfill Mixture; Backfill mixture to be 75% native soil and 25% topsoil, thoroughly mixed together prior to placement.

F. Topsoil: Required for turf areas, planter beds and Backfill Mixture. Acceptable topsoil shall meet the following standards:

a. PH: 5.5-7.5
b. EC (electrical conductivity): < 2.0 mmhos per centimeter
c. SAR (sodium absorption ration): < 3.0
d. % OM (percent organic matter): >1%
e. Texture (particle size per USDA soil classification): Sand <70%; Clay < 30%; Silt < 70%, Stone fragments (gravel or any soil particle greater than two (2) mm in size) < 5% by volume.

G. Turf Sod: All sod shall be 18 month old as specified on plans (or approved equal) that has been cut fresh the morning of installation. Only sod that has been grown on a commercial sod farm shall be used. Only use sod from a single source.

H. Landscape Curb Edging: six (6) inches by four (4) inches extruded concrete curb made up of the following materials:

a. Washed mortar sand free of organic material.
b. Portland Cement (see concrete spec. below for type)
c. Reinforced fiber - Specifically produced for compatibility with aggressive alkaline environment of Portland cement-based composites.
d. Only potable water for mixing.

I. Landscape Metal Edging: 5.5" steel edging with 18" dowels into the ground for stabilization.

PART III - EXECUTION

3.1 GRADING

A. Topsoil Preparation: Grade planting areas according to the grading plan. Eliminate uneven areas and low spots. Provide for proper grading and drainage.

B. Topsoil Placement: Slope surfaced away from building at two (2) percent slope with no pockets of standing water. Establish finish grades of one (1) inches for planters below grade of adjacent paved surfaced. Provide neat, smooth, and uniform finish grades. Remove surplus sub-soil and topsoil from the site.

C. Compaction: compaction under hard surface areas (asphalt paths and concrete surfaces) shall be ninety-five (95) percent. Compaction under planting areas shall be between eighty-five (85) and ninety (90) percent.

3.2 TURF GRADING

A. The surface on which the sod is to be laid shall be firm and free from footprints, depressions, or undulations of any kind. The surface shall be free of all materials larger than 1/2" in diameter.

B. The finish grade of the topsoil adjacent to all sidewalks, mow-strips, etc. prior to the laying of sod, shall be set such that the crown of the grass shall be at the same level as the adjacent concrete or hard surface. No exceptions.

3.3 PLANTING OPERATIONS

A. Review the exact locations of all trees and shrubs with the Project Representative for approval prior to the digging of any holes. Prepare all holes according to the details on the drawings.

B. Water plants immediately upon arrival at the site. Maintain in moist condition until planted.

C. Before planting, locate all underground utilities prior to digging. Do not place plants on or near utility lines.

D. The tree planting hole should be the same depth as the root ball, and two times the diameter of the root ball.

E. Trees must be placed on undisturbed soil at the bottom of the planting hole.

F. The tree hole depth shall be determined so that the tree may be set slightly high of finish grade, 1" to 2" above the base of the trunk flare, using the top of the root ball as a guide.

G. Plant immediately after removal of container for container plants.

H. Set tree on soil and remove all burlap, wire baskets, twine, wrappings, etc. before beginning and backfilling operations. Do not use planting stock if the ball is cracked or broken before or during planting operation.

I. Apply vitamin B-1 root stimulator at the rate of one (1) tablespoon per gallon.

J. Upon completion of backfilling operation, thoroughly water tree to completely settle the soil and fill any voids that may have occurred. Use a watering hose, not the area irrigation system. If additional prepared topsoil mixture needs to be added. It should be a courser mix as required to establish finish grade as indicated on the drawings.

K. The amount of pruning shall be limited to the minimum necessary to remove dead or injured twigs and branches. All cuts, scars, and bruises shall be properly treated according to the direction of the Project Representative. Proper pruning techniques shall be used. Do not leave stubs and do not cut the leader branch. Improper pruning shall be cause for rejection of the plant material.

L. Prepare a watering circle of 2' diameter around the trunk. For conifers, extend the watering well to the drip line of the tree canopy. Place mulch around the planted trees.

4. TURF - SOD LAYING

A. Top Soil Amendments: Prior to laying sod, commercial fertilizer shall be applied and incorporated into the upper four (4) inches of the topsoil at a rate of four pounds of nitrogen per one thousand (1,000) square feet. Adjust fertilization mixture and rate of application as needed to meet recommendations given by topsoil analysis. Include other amendments as required.

B. Fertilization: Three weeks after sod placement fertilize the turf at a rate of ½ pound of nitrogen per 1000 square feet. Use fertilizer specified above. Adjust fertilization mixture and rates to meet recommendations given by topsoil analysis.

C. Sod Availability and Condition: Sod is to be delivered to the site in good condition. It is to be inspected upon arrival and installed within 24 hours. Sod is to be moist and cool to ensure that decomposition has not begun and is to be free of pests, diseases, or blemishes. The Contractor shall satisfy himself as to the existing conditions prior to any construction. The Contractor shall be fully responsible for furnishing and laying all sod required on the plans. He shall furnish new sod as specified above and lay it so as to completely satisfy the intent and meaning of the plans and specification at no extra cost to the owner. In the case of any discrepancy in the amount of sod to be removed or amount to be used, it shall be the Contractor's responsibility to report such to the Project Representative prior to commencing the work.

D. Sod Laying: The surface upon which the new sod to be laid will be prepared as specified in the detail and be lightly watered before laying. Areas where sod is to be laid shall be cut trimmed, or shaped to receive full width sod (minimum twelve (12) inches). No partial strip or pieces will be accepted.

E. Sod shall be tamped lightly as each piece is set to ensure that good contact is made between edges and also the ground. If voids or holes are discovered, the sod piece(s) is (are) to be raised and topsoil is to be used to fill in the area until level. Sod laid on any sloped areas shall be anchored with wooden dowels or other materials which are accepted by the grass sod industry.

F. Sod shall be rolled with a roller that is at least 50% full immediately after installation to ensure the full contact with soil is made.

G. Apply water directly after laying sod. Rainfall is not acceptable.

H. Watering of the sod shall be the complete responsibility of the Contractor by whatever means necessary to establish the sod in an acceptable manner to the end of the Maintenance period. If an irrigation system is in place on the site, but for whatever reason, water is not available in the system. It is the responsibility of the Contractor to water the sod by whatever means, until the sod is accepted by the Project Representative.

I. Protection of the newly laid sod shall be the complete responsibility of the Contractor. The Contractor shall provide acceptable visual barriers, to include barricades set appropriate distances with strings or tapes between barriers, as an indication of new work. The Contractor is to restore any damaged areas caused by others (including vehicular traffic), erosion, etc, until such time as the lawn is accepted by the Owner.

J. All sod that has not been laid within 24 hours shall be deemed unacceptable and will be removed from the site.

3.5 WEED BARRIER

A. For the health of the soil and the microorganisms, weed barrier is not recommended. If use is required or requested, do not place in annual or grass areas.

B. Cut weed barrier back to the edge of the plant rootball.

C. Overlap rows of fabric min. 6"

D. Stable fabric edges and overlaps to ground.

END OF SECTION

LANDSCAPE NOTES

INSTALLATION

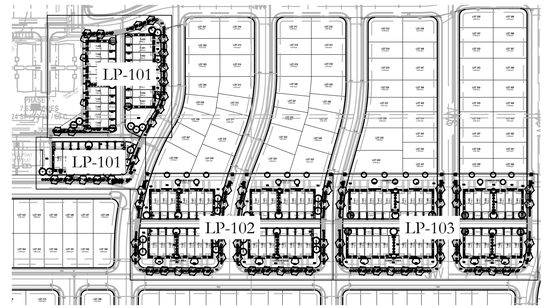
1. LANDSCAPE CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT CONTRACTORS EXPENSE WITH NO ADDITIONAL COST TO THE OWNER.
2. DURING THE BIDDING AND INSTALLATION PROCESS, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE QUANTITIES TO BE USED.
3. ALL PLANT MATERIAL SHALL BE PLANTED ACCORDING TO INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) STANDARDS WITH CONSIDERATION TO INDIVIDUAL SOIL AND SITE CONDITIONS, AND NURSERY CARE AND INSTALLATION INSTRUCTIONS.
4. SELECTED PLANTS WILL BE ACCORDING TO THE PLANT LEGEND. IF SUBSTITUTIONS ARE NECESSARY, PROPOSED LANDSCAPE CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO LAYING SOD.
5. SHOULD THE SITE REQUIRE ADDITIONAL TOPSOIL, REFER TO SOIL TEST WHEN MATCHING EXISTING SOIL. IF A MATCHING SOIL IS NOT LOCATABLE, A 6" DEPTH OF SANDY LOAM TOPSOIL (MIXED PRIOR TO SPREADING WITH 2-3" OF QUALITY COMPOST) CAN BE INCORPORATED INTO THE EXISTING SOIL USING THE FOLLOWING DIRECTIONS: SCARIFY TOP 6" OF EXISTING SUBSOIL AND INCORPORATE 3" OF NEW COMPOST ENRICHED TOPSOIL. SPREAD REMAINING TOPSOIL TO REACH FINISHED GRADE.
6. SOD FOR NEW LAWN AREAS SHALL BE A DROUGHT TOLERANT VARIETY. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD.
7. EDGING, AS INDICATED ON PLAN, IS TO BE INSTALLED BETWEEN ALL LAWN AND PLANTER AREAS. ANY TREES LOCATED IN LAWN MUST HAVE A 4-6' TREE RING OF THE SAME EDGING.
8. IF REQUIRED BY CITY OR OWNER SPECIFIED, DeWitt 5 OZ WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS EXCEPT UNDER ANNUAL PLANTING AREAS AS SHOWN ON PLAN. WEED BARRIER SHALL BE CUT BACK FROM EACH PLANT TO THE DIAMETER OF THE ROOTBALL.
9. ROCK MULCH (INORGANIC MULCH) TO BE APPLIED AT THE FOLLOWING DEPTHS: 3" IN ALL TREE, SHRUB, AND PERENNIAL PLANTER AREAS; ANNUAL PLANTING AREAS AS SHOWN ON PLAN TO RECEIVE 4" OF SOIL AID MATERIAL (ORGANIC MULCH). NO MULCH SHALL BE PLACED WITHIN 12" OF BASE OF TREE AND 6" WITHIN BASE OF SHRUBS AND PERENNIALS.
10. A NEW UNDERGROUND, AUTOMATIC IRRIGATION SYSTEM IS TO BE INSTALLED BY CONTRACTOR IN ALL LANDSCAPED AREAS. LAWN AREAS TO RECEIVE AT LEAST 100% HEAD TO HEAD COVERAGE AND PLANTER AREAS TO RECEIVE A FULL DRIP SYSTEM TO EACH TREE AND SHRUB. POINT SOURCE DRIP OR IN-LINE DRIP TUBING TO BE SECURED AT EDGE OF ROOTBALL, NOT AGAINST TRUNK. SEE IRRIGATION PLAN.
11. UPON REQUEST, A PLANT GUIDE IS AVAILABLE WITH OUR RECOMMENDATIONS REGARDING WEED BARRIER, PLANT CARE AND MAINTENANCE

INSTALLER RESPONSIBILITIES AND LIABILITIES

1. THESE PLANS ARE FOR BASIC DESIGN LAYOUT AND INFORMATION. LANDSCAPE CONTRACTOR IS REQUIRED TO USE TRADE KNOWLEDGE FOR IMPLEMENTATION. OWNER ASSUMES NO LIABILITIES FOR INADEQUATE ENGINEERING CALCULATIONS, MANUFACTURER PRODUCT DEFECTS, INSTALLATION OF ANY LANDSCAPING AND COMPONENTS, OR TIME EXECUTION.
2. LANDSCAPE CONTRACTOR IS RESPONSIBLE AND LIABLE FOR INSTALLATION OF ALL LANDSCAPING AND IRRIGATION SYSTEMS INCLUDING CODE REQUIREMENTS, TIME EXECUTIONS, INSTALLED PRODUCTS AND MATERIALS.

GRADING AND DRAINAGE REQUIREMENTS

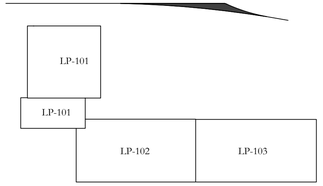
1. AS PER CODE, ALL GRADING IS TO SLOPE AWAY FROM ANY STRUCTURE. SURFACE OF THE GROUND WITHIN 10' FEET OF THE FOUNDATION SHOULD DRAIN AWAY FROM THE STRUCTURE WITH A MINIMUM FALL OF 6"
2. AS PER CODE, FINISHED GRADE WILL NOT DRAIN ON NEIGHBORING PROPERTIES
3. A MINIMUM OF 6" OF FOUNDATION WILL BE LEFT EXPOSED AT ALL CONDITIONS
4. LANDSCAPE CONTRACTOR TO MAINTAIN OR IMPROVE FINAL GRADE AND PROPER DRAINAGE ESTABLISHED BY EXCAVATOR, INCLUDING BUT NOT LIMITED TO ANY MAINTENANCE, PRESERVATION, OR EXAGGERATION OF SLOPES, BERMS, AND SWALES.
5. LANDSCAPE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY DAMAGED OR IMPROPER WATERFLOW OF ALL SWALES, BERMS, OR GRADE
6. DEVICES FOR CHANNELING ROOF RUN-OFF SHOULD BE INSTALLED FOR COLLECTION AND DISCHARGE OF RAINWATER AT A MINIMUM OF 10' FROM THE FOUNDATION, OR BEYOND THE LIMITS OF FOUNDATION WALL BACKFILL; WHICHEVER DISTANCE IS GREATER



SITE MATERIALS LEGEND

	1-01	SODDED LAWN AREA LAWN AREAS SHALL BE SOD. NEW TURF AREAS TO BE SODDED WITH 18% "BLUESTAR KENTUCKY BLUEGRASS, 19% "MARQUIS" KENTUCKY BLUEGRASS, 17% "NEWPORT" KENTUCKY BLUEGRASS, 17% "TOUCHDOWN" KENTUCKY BLUEGRASS, 16% "APM PERENNIAL RYEGRASS, 13% "ACCENT PERENNIAL RYEGRASS OR APPROVED EQUAL AT A RATE OF 220 LBS. PER ACRE. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD. ALL LAWN AREAS SHALL BE IRRIGATED WITH 125% COVERAGE BY POP-UP SPRAY HEADS AND GEAR-DRIVEN ROTORS. ALL DECIDUOUS AND CONIFER TREES PLANTED WITHIN SOD AREAS SHALL HAVE A FOUR FOOT(4') DIAMETER TREE RING COVERED WITH CHOCOLATE BROWN BARK MULCH, NO SHREDDED FINES. SUBMIT SAMPLES TO BE APPROVED BY LANDSCAPE ARCHITECT AND OWNER BEFORE INSTALLATION.	96,556 sf
	1-03	LARGE SIZE DECORATIVE ROCK AREAS: LARGE SIZE DECORATIVE ROCK AREAS SHALL INCLUDE THE PLANTER BEDS AS SHOWN. PLANTER BEDS SHALL BE COMPLETELY FINISH-COVERED WITH TWO TO FOUR INCH (2"-4") TAURUS CEDARSTONE COBBLE ROCK. APPLY DECORATIVE ROCK TO A MINIMUM DEPTH OF FOUR INCHES (4") OVER ENTIRE AREA. SUBMIT SAMPLES TO BE APPROVED BY LANDSCAPE ARCHITECT AND OWNER BEFORE INSTALLATION. ALL TREES AND SHRUBS WITHIN DECORATIVE ROCK AREAS SHALL BE WATERED WITH POINT-SOURCE DRIP IRRIGATION. ONLY 2"-4" DIAMETER ROCK LANDSCAPE CONTRACTOR CAN USE A DIFFERENT MANUFACTURER AND VARIETY. THESE MUST BE 2"-4" DIAMETER NO LARGER AND GRAY IN COLOR. ALL STONE IN ENTIRE DEVELOPMENT MUST BE THE SAME IN ALL PHASES. SAMPLES ARE REQUIRED TO BE SUBMITTED TO PROJECT MANAGER, EDGE HOMES. ALL ROCK MUST BE APPROVED PRIOR TO INSTALLATIONS.	27,932 sf
	1-05	SMALL SIZE DECORATIVE ROCK AREAS: SMALL SIZE DECORATIVE ROCK AREAS SHALL INCLUDE THE PLANTER BEDS AS SHOWN. PLANTER BEDS SHALL BE COMPLETELY FINISH-COVERED WITH THREE QUARTER INCH (3/4") COTTONWOOD FRACTURED STONE GRAVEL ROCK. APPLY DECORATIVE ROCK TO A MINIMUM DEPTH OF THREE INCHES (3") OVER ENTIRE AREA. SUBMIT SAMPLES TO BE APPROVED BY LANDSCAPE ARCHITECT AND OWNER BEFORE INSTALLATION. ALL TREES AND SHRUBS WITHIN DECORATIVE ROCK AREAS SHALL BE WATERED WITH POINT-SOURCE DRIP IRRIGATION. ONLY 3/4" DIAMETER ROCK LANDSCAPE CONTRACTOR CAN USE A DIFFERENT MANUFACTURER AND VARIETY. THESE MUST BE 3/4" DIAMETER NO LARGER AND MATCH COTTONWOOD FRACTURED STONE ROCK IN COLOR. ALL STONE IN ENTIRE DEVELOPMENT MUST BE THE SAME IN ALL PHASES. SAMPLES ARE REQUIRED TO BE SUBMITTED TO PROJECT MANAGER, EDGE HOMES. ALL ROCK MUST BE APPROVED PRIOR TO INSTALLATIONS.	33,599 sf

SHEET INDEX



LANDSCAPE IRRIGATED AREA
TOTAL LAWN: 96,556 SQ FT
ROCK AREA COVERAGE: 61,531 SQ FT 50% COVERAGE: 30,766 SQ FT

TOTAL IRRIGATED AREA: 127,322 SQ FT

REQUIRED TREES: 88 UNITS
88 TREES REQUIRED: 123 TREES PROVIDED (NOT INCLUDING STREET TREES)

PLANT LEGEND

TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	ACTP	32	Acer truncatum x platanoides `JFS-KW187` TM Urban Sunset Maple	2" Cal
	GBPP	19	Ginkgo biloba `Princeton Sentry` Princeton Sentry Gingko	2" Cal
	MPPR	13	Malus x `Prairie Rose` Prairie Rose Crabapple	2" Cal
	ULP	69	Ulmus parvifolia Lacebark Elm	2" Cal
	ZSM	36	Zelkova serrata `Musashino` Sawleaf Zelkova	2" Cal

SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	BTC	68	Berberis thunbergii `Crimson Pygmy` Crimson Pygmy Barberry	5 gal
	CSK	68	Cornus sericea `Kelseyi` Kelseyi Dogwood	5 gal
	EAC	23	Euonymus alatus `Compactus` Compact Burning Bush	5 gal
	JSB	44	Juniperus Scopulorum `Blue Arrow` Blue Arrow Juniper	5 gal
	SJW	69	Spiraea japonica `Walbuma` Magic Carpet Spirea	5 gal
	VON	331	Viburnum opulus `Nanum` Dwarf European Viburnum	5 gal

DECIDUOUS SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	RFr	44	Rhamnus frangula `Ron Williams` Fine Line Fine Line Buckthorn	5 gal
	Rag	212	Ribes odoratum Golden Currant	5 gal

EVERGREEN SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	BSS	597	Buxus sempervirens `Suffruticosa` Suffruticosa Common Boxwood	5 gal

GRASSES	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	CAK	583	Calamagrostis x acutiflora `Karl Foerster` Feather Reed Grass	1 gal
	PVS	448	Panicum virgatum `Shenandoah` Shenandoah Switch Grass	1 gal

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
6/13/2022	UT21146						PM: JTA

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
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811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

N

0 100' 200' 400' 800'
GRAPHIC SCALE: 1" = 200'

RIVER POINT: PH 2
LEHI, UTAH

EDGE HOMES
ATT: BRANDON PARR
801-494-0150
BPARR@EDGEHOMES.COM

PKJ DESIGN GROUP
Landscape Architecture / Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSED LANDSCAPE ARCHITECT
JEREMY AINSWORTH
8128737-5301
06/13/2022
ELECTRONIC SEAL
STATE OF UTAH

DRAWN: ACP
CHECKED: JMA
PLOT DATE: 6/13/2022

LANDSCAPE PLAN COVER

LP-100

PLANT LEGEND

TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	A'T'P	32	Acer truncatum x platanoides 'JFS-KW187' TM Urban Sunset Maple	2" Cal
	GB'P	19	Ginkgo biloba 'Princeton Sentry' Princeton Sentry Gingko	2" Cal
	M'PR	13	Malus x 'Prairie Rose' Prairie Rose Crabapple	2" Cal
	ULP	*69*	Ulmus parvifolia Lacebark Elm	2" Cal
	ZS'M	36	Zelkova serrata 'Musashino' Sawleaf Zelkova	2" Cal

SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	B'T'C	68	Berberis thunbergii 'Crimson Pygmy' Crimson Pygmy Barberry	5 gal
	CS'K	68	Cornus sericea 'Kelseyi' Kelseyi Dogwood	5 gal
	EA'C	23	Euonymus alatus 'Compactus' Compact Burning Bush	5 gal
	JS'B	44	Juniperus Scopulorum 'Blue Arrow' Blue Arrow Juniper	5 gal
	SJ'W	*69*	Spiraea japonica 'Walbuma' Magic Carpet Spirea	5 gal
	VO'N	331	Viburnum opulus 'Nanum' Dwarf European Viburnum	5 gal

DECIDUOUS SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	Rf'r	44	Rhamnus frangula 'Ron Williams' Fine Line Fine Line Buckthorn	5 gal
	Ra'g	212	Ribes odoratum Golden Currant	5 gal

EVERGREEN SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	BS'S	597	Buxus sempervirens 'Suffruticosa' Suffruticosa Common Boxwood	5 gal

GRASSES	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	CA'K	583	Calamagrostis x acutiflora 'Karl Foerster' Feather Reed Grass	1 gal
	PV'S	448	Panicum virgatum 'Shenandoah' Shenandoah Switch Grass	1 gal

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PLAN INFORMATION

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N

0' 30' 60' 120' 240'
GRAPHIC SCALE: 1" = 60'

PROJECT INFORMATION

RIVER POINT: PH 2
LEHI, UTAH

DEVELOPER / PROPERTY OWNER / CLIENT

EDGE HOMES
ATT: BRANDON PARR
801-494-0150
BPARR@EDGEHOMES.COM

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture / Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

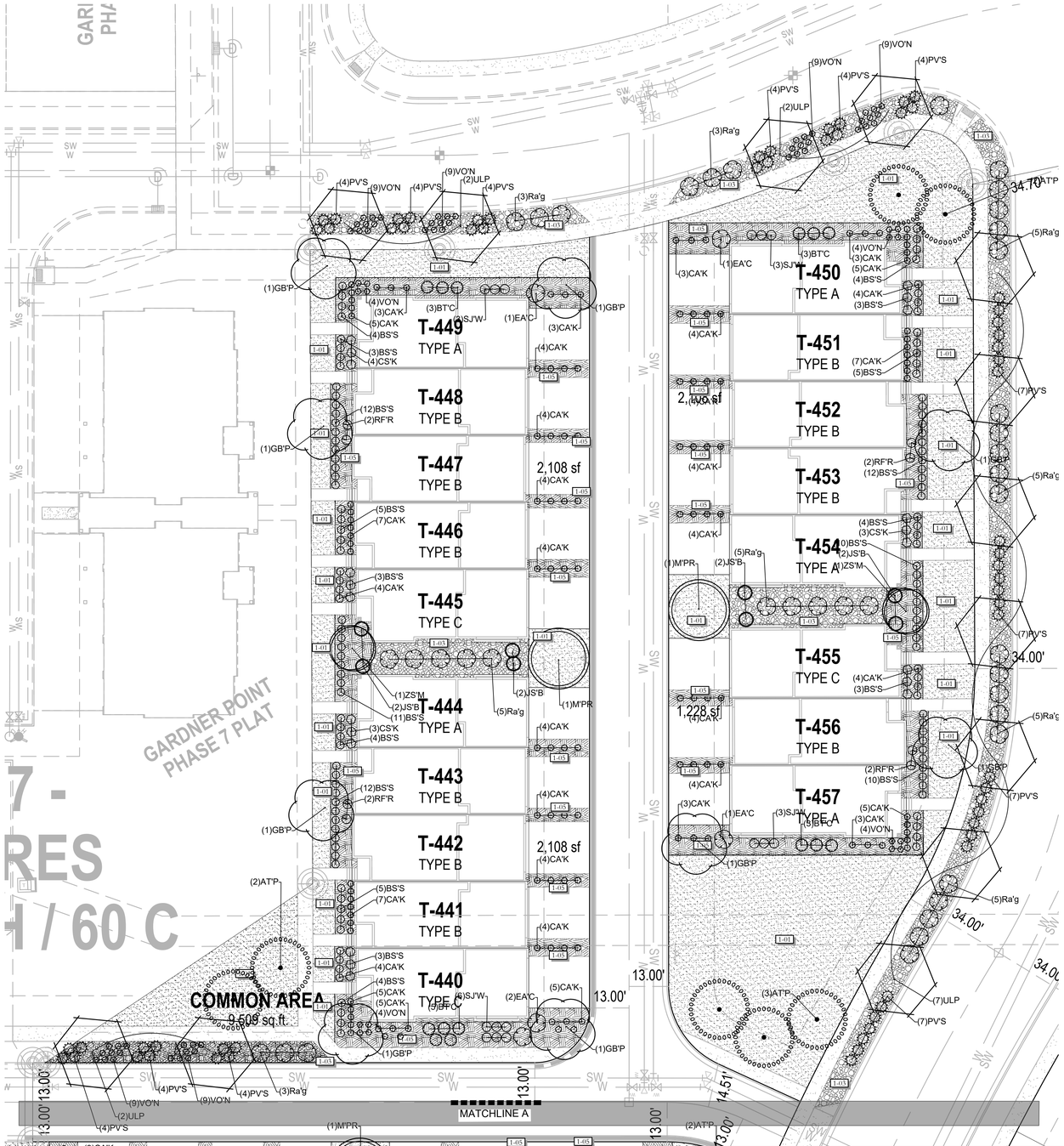
LICENSED LANDSCAPE ARCHITECT
JEREMY ANDWORTH
8128121-5301
06/13/2022
ELECTRONIC SEAL
STATE OF UTAH

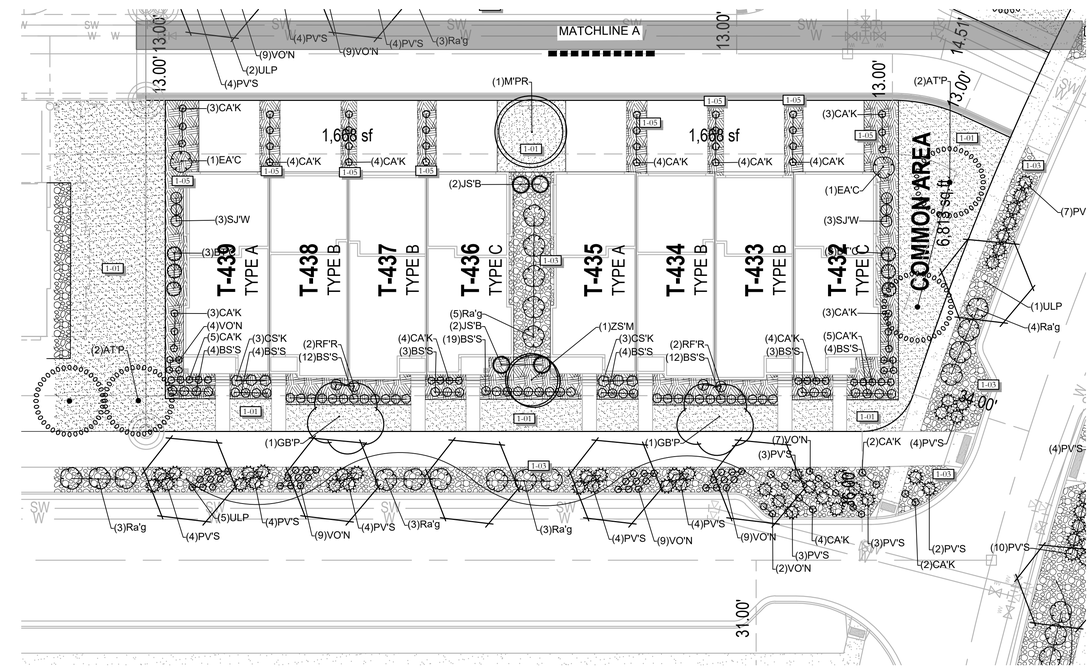
DRAWING INFO

PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	6/13/2022

LANDSCAPE PLAN OVERALL

LP-O





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N

0' 10' 20' 40' 80'
GRAPHIC SCALE: 1" = 20'

PROJECT INFORMATION

RIVER POINT: PH 2
LEHI, UTAH

DEVELOPER / PROPERTY OWNER / CLIENT

EDGE HOMES
ATT: BRANDON PARR
801-494-0150
BPARR@EDGEHOMES.com

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

LICENSED LANDSCAPE ARCHITECT
JEREMY AINSWORTH
8128214-5301
06/13/2022
ELECTRONIC SEAL
STATE OF UTAH

DRAWING INFO

PM:	JTA
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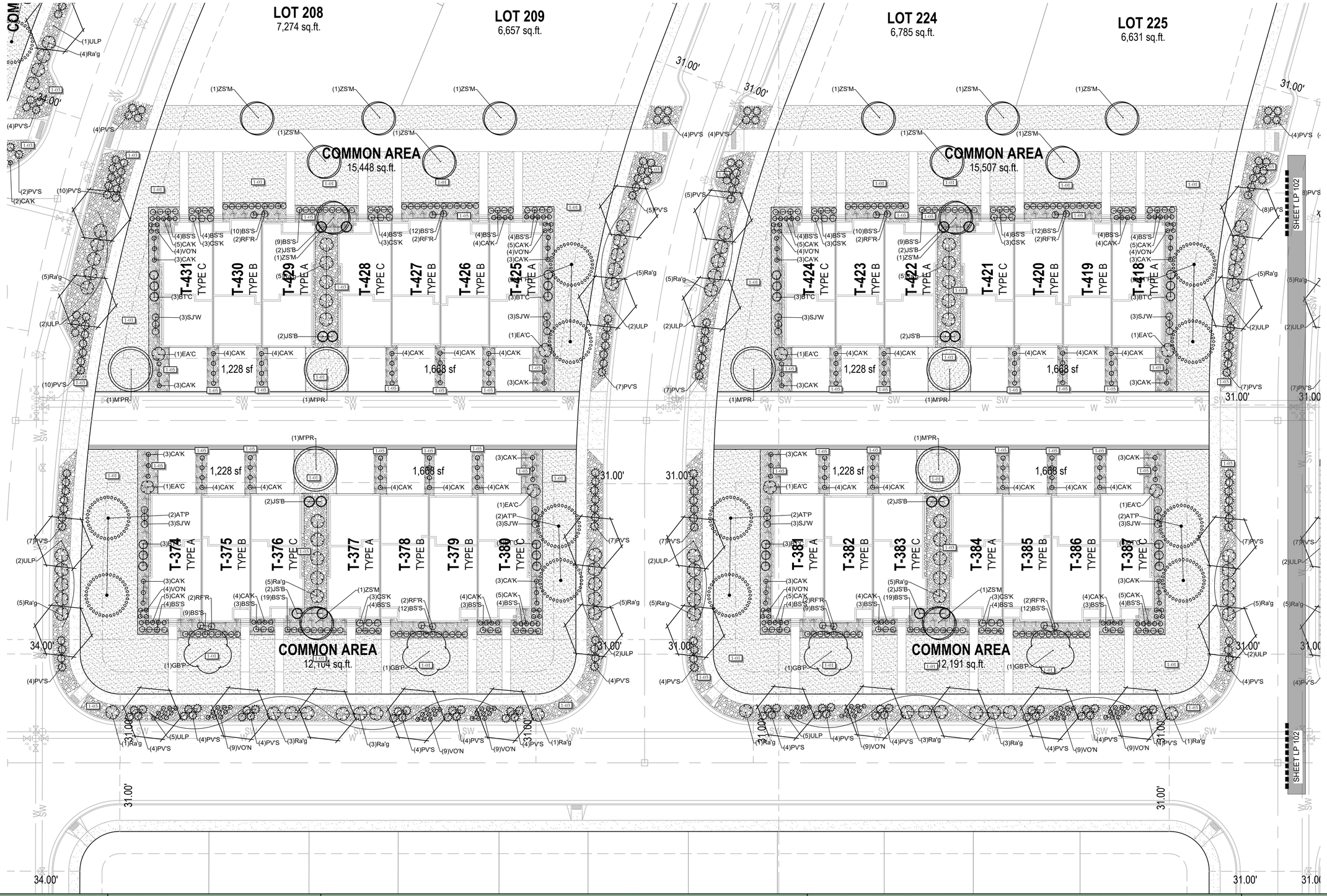
CHECKED:	JMA
PLOT DATE:	6/13/2022

LANDSCAPE PLAN

LP-101



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UTILITY NOTIFICATION CENTER, INC
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www.bluestakes.org

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RIVER POINT: PH 2
LEHI, UTAH

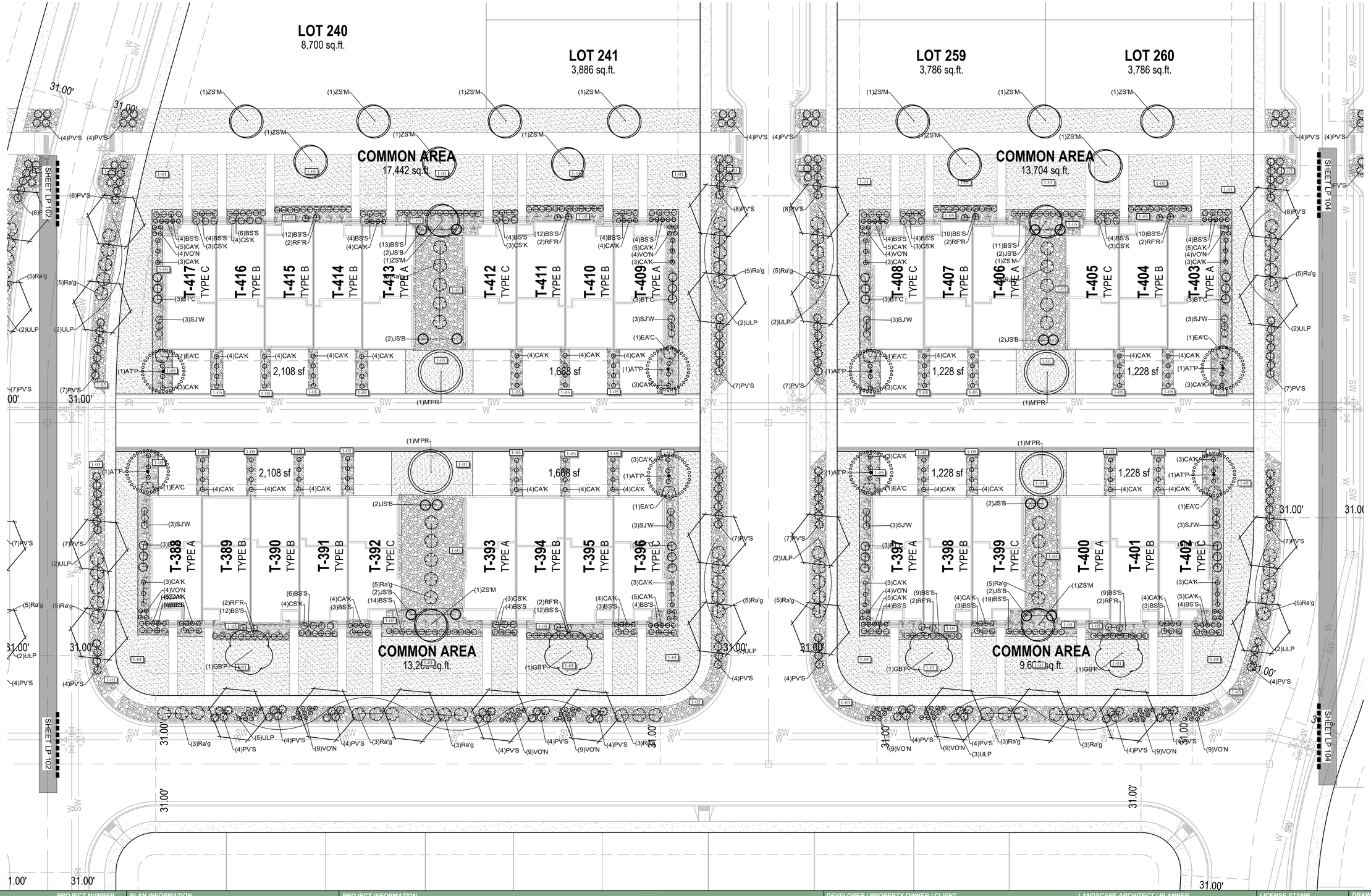
EDGE HOMES
ATT: BRANDON PARR
801-494-0150
BPARR@EDGEHOMES.COM

PKJ DESIGN GROUP
Landscape Architecture / Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSED LANDSCAPE ARCHITECT
JEREMY ANGWORTH
812817-5301
06/13/2022
ELECTRONIC SEAL
STATE OF UTAH

LANDSCAPE PLAN

LP-102



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
6/13/2022	UT21146						PM: JTA
							DRAWN: ACP
							CHECKED: JMA
							PLOT DATE: 6/13/2022

NO.	REVISION	DATE
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811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
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GRAPHIC SCALE: 1" = 20'

RIVER POINT: PH 2
LEHI, UTAH

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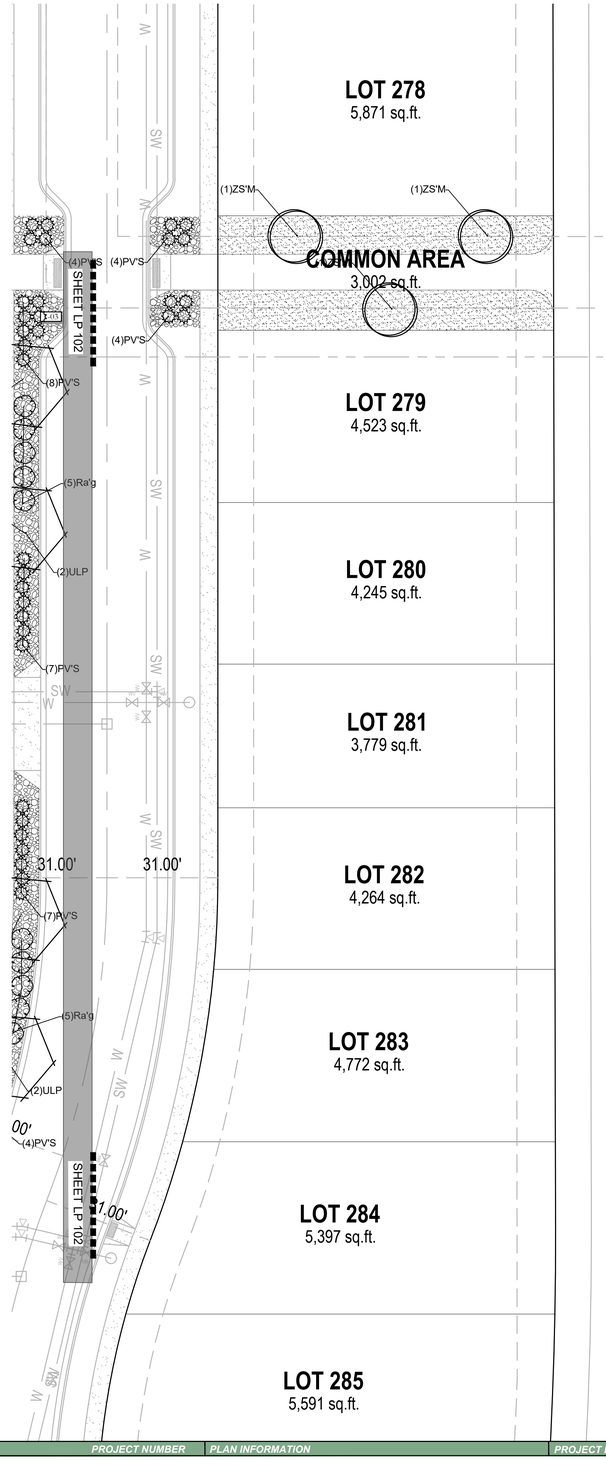
LICENSED LANDSCAPE ARCHITECT
JEREMY ANDMORTH
8128121-5301
06/13/2022
RENEWAL DATE
STATE OF UTAH

LANDSCAPE PLAN

LP-103



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION
6/13/2022	UT21146	

NO.	REVISION	DATE
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N

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GRAPHIC SCALE: 1" = 20'

PROJECT INFORMATION

RIVER POINT: PH 2
LEHI, UTAH

DEVELOPER / PROPERTY OWNER / CLIENT

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LANDSCAPE ARCHITECT / PLANNER

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LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

LICENSED LANDSCAPE ARCHITECT
JEREMY AINSWORTH
STATE OF UTAH
6128147-5301
06/13/2022
ELECTRONIC SEAL

DRAWING INFO

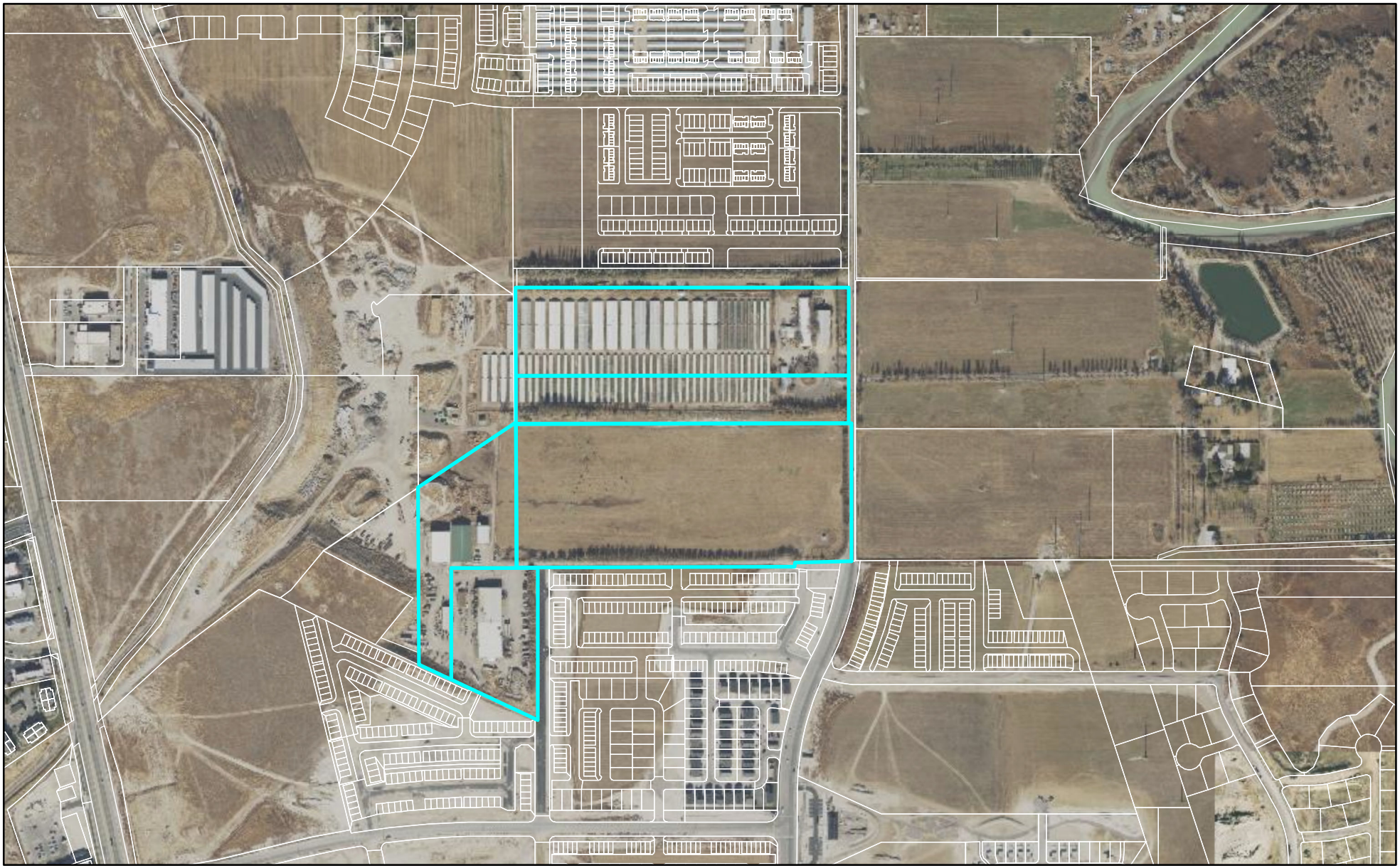
PM: JTA
DRAWN: ACP
CHECKED: JMA
PLOT DATE: 6/13/2022

LANDSCAPE PLAN

LP-104

River Point Phase 2 Preliminary Subdivision

Aerial



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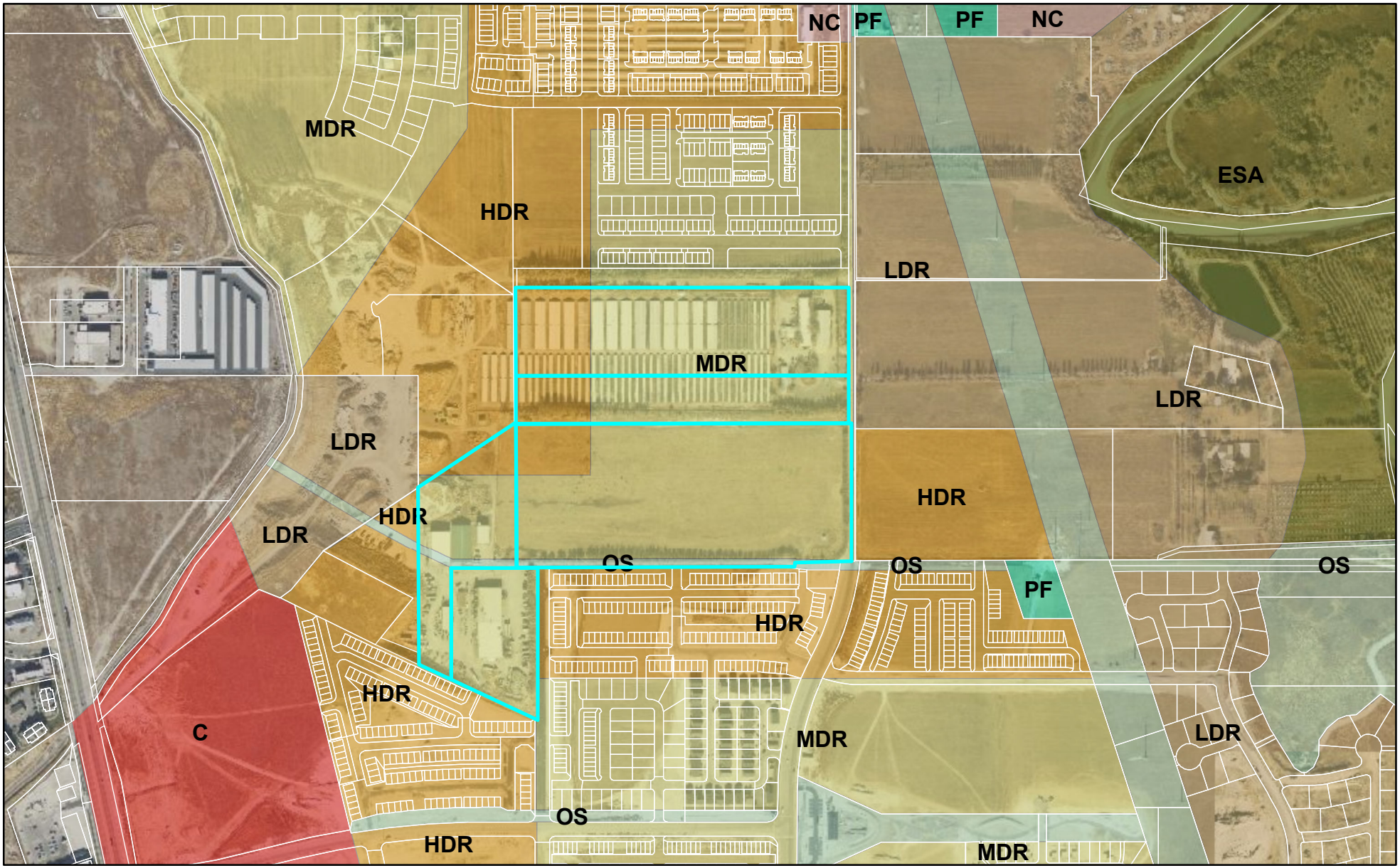
LEHI CITY

River Point Phase 2 Preliminary Subdivision

General Plan



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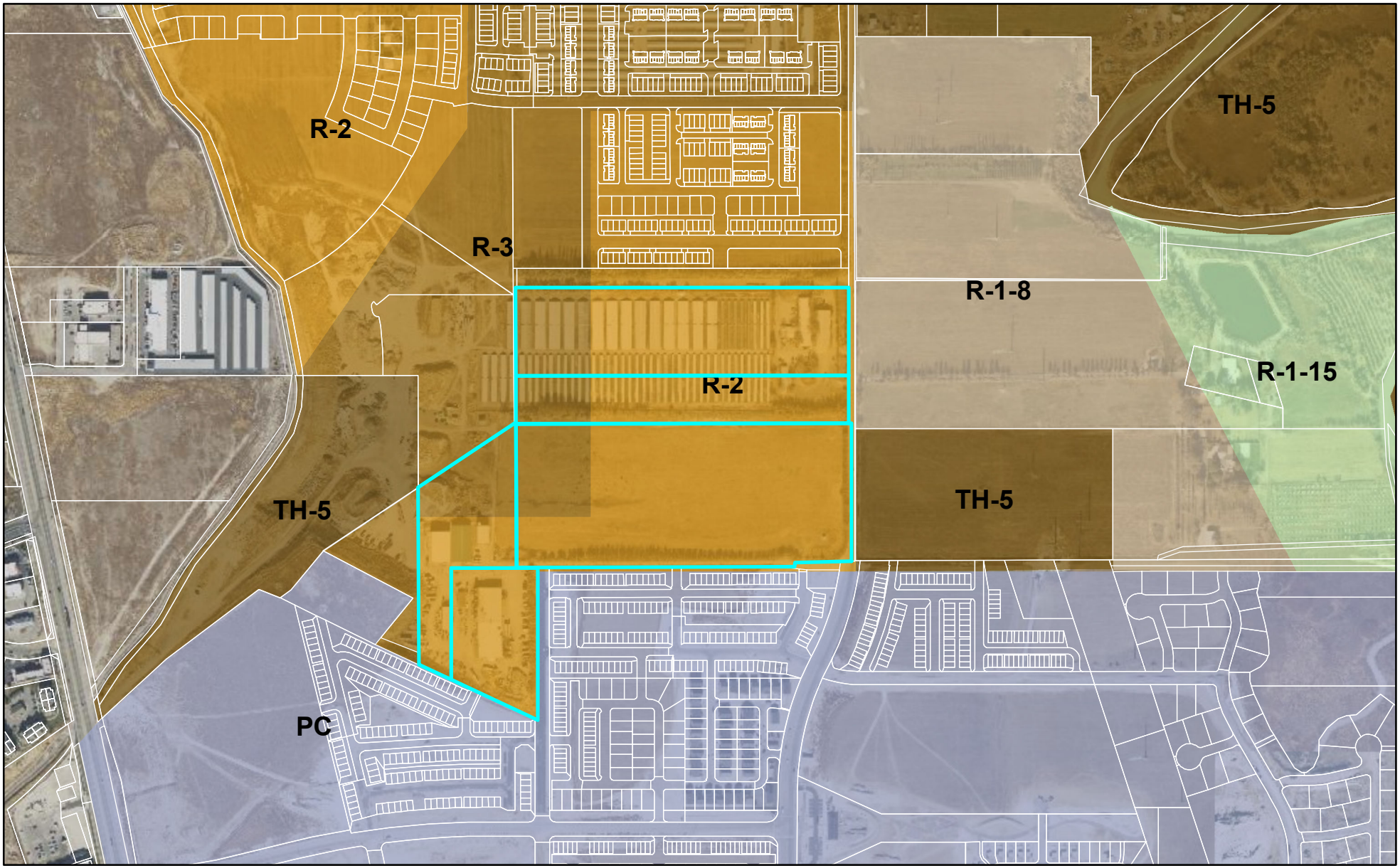
LEHI CITY

River Point Phase 2 Preliminary Subdivision

Zoning



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LEHI CITY

Agenda Item No: 13

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Jacob Curtis
Submitting Department: Planning Division
Item Type: Ordinance
Agenda Section: Regular Agenda

Subject:
Consideration of James Karren's request for approval of the Karren zone change, from R-1-Flex (residential) to R-2 (medium density residential) on 0.75-acres located at 105 South 500 West.

Suggested Action:

Attachments:

CC Staff Report Karren R-2 Zone Change 08.23.22.docx

Karren Zone Change- R-1-Flex to R-2 DRC 07.20.22.docx

Ord 44-2022.docx

Karren R-2 Zone Change narrative.pdf

Karren R-2 Zone Change 7.20.22.pdf

Karren ZC aerial.pdf

Karren ZC General Plan.pdf

Karren ZC Zoning.pdf

KARREN R-2 ZONE CHANGE

CITY COUNCIL REPORT

Applicant	James Karren		
Meeting Date	August 23, 2022		
Requested Action/Purpose	Approval of a proposed zone change		
Location	105 South 500 West		
Project Area	0.73 acres		
Existing Zoning	RA-1 (R-1-Flex was approved in 2021)		
Proposed Zoning	R-2		
Existing General Plan Land Use Designation	MDR (Medium Density Residential)		
Adjacent Zoning and Land Use	*North*	RA-1	Single family residential
	South	RA-1	Single family residential
	East	RA-1	Detached historic secondary structure
	West	RA-1	Single family residential
Date of DRC Review	July 20, 2022		
Date of Planning Commission Review	August 4, 2022		
Assigned Planner	Jacob Curtis		

REQUIRED ACTION

Planning Commission	Review and recommendation
City Council	Final approval

APPLICABLE GENERAL PLAN GOALS AND POLICIES

MEDIUM DENSITY RESIDENTIAL (MDR)

The Medium Density Residential (MDR) classification is used to identify and encourage the development of a variety of moderate density housing types, including single family dwellings, two-family dwellings, and townhomes, with an overall density not to exceed 6 dwelling units per acre.

APPLICABLE DEVELOPMENT CODE REGULATIONS

Section 04.060 Criteria for Approval, of the Lehi City Development Code, the Planning Commission should consider the following factors, among others, when reviewing a zone amendment:

1. The effect of the proposed amendment on the character of the surrounding area;
2. Consistency with the goals and policies of the General Plan;
3. Consistency and compatibility of the proposed zone with the General Plan land uses of nearby and adjoining properties;
4. The suitability of the properties for the uses requested and their suitability for the existing uses identified by the General Plan;
5. Whether a change in the uses allowed for the affected properties will unduly affect the uses, or proposed uses for nearby and adjoining properties;
6. The gain to the public health, safety, and welfare from the existing classification to the proposed amendment; and
7. The overall community benefit of the proposed amendment.

PROPERTY HISTORY

June 15, 1852 – This property is part of the original incorporated boundaries of Lehi.
August 10, 2021 – The City Council approved a Zone Change to R-1-Flex.
January 25, 2022 – The City Council approved a comprehensive update to the General Plan Land Use Map that changed the subject property from LDR to MDR.

REPORT ANALYSIS

The applicant is seeking approval of a proposed zone change from RA-1 to R-2 for 0.73 acres located at 105 South 500 West. This property had an approved zone change to R-1-Flex in July 2021, but water dedication had not yet occurred to finalize the zone change when the General Plan Land Use Map update opened new opportunities for the property.

This zone change is consistent with the approved General Plan designation of MDR for the property. The applicant has indicated an interest in subdividing the property into three smaller lots, with one of those being the existing home. Appropriate subdivision plans and a survey will be required to make sure that the proposal is feasible in regard to frontages, setbacks, and lot sizes. However, the first step towards any future development of the property is the zone change.

The DRC had two comments on the proposed zone change, including the following:

1. Additional culinary water dedication will be required for this zone change to address the additional demand for culinary water, and would be a condition of recording the zone change ordinance.
2. Drawing not included as this is just a zone change application.

Please include the DRC comment in the motion.

POSSIBLE MOTIONS AND FINDINGS

The City Council may move to approve or deny the proposed zone change. Any motion should include findings. Possible findings include:

1. The proposed zone change is consistent with the Medium Density Residential designation of the General Plan.
2. The proposed zone change is/is not consistent with the goals and policies of the General Plan.
3. The proposed change is/is not consistent and compatible with the General Plan land uses of nearby and adjoining properties.
4. The proposed change will/will not unduly affect the uses, or proposed uses for nearby and adjoining properties.

PLANNING COMMISSION RECOMMENDATION

The Planning Commission reviewed the proposed zone change on August 4, 2022. The minutes and motion from this meeting are as follows:

Karren Residential Zone Change
DRC Redline Comments

*James Karren- requests review of the **Karren Zone Change**, .75-acres located at 105 South 500 West changing the zoning from R-1-Flex to R-2.*

DRC Members Present: Glade Kirkham, Garion Rowett, Greg Allred, Matthew Meier, Kim Struthers, Gary Smith, Ross Dinsdale, Trent Dyer, Luke Seegmiller
Representatives of the Applicant Present: None
Date of Plans Reviewed: **7/7/22**
Time Start: 3:01 pm
Time End: 3:03 pm

DRC REDLINE COMMENTS:
Glade – Power: No comments
Garion – Fire: No comments
Greg – Water/Sewer: No comments
Trent – Parks: No comments
Gary – Building/Inspections: No comments
Matt – Public Works: No comments
Ross – Engineering: No comments
Luke- Traffic: No comments
Kim – Planning:
1. Additional culinary water dedication will be required for this zone change to address the additional demand for culinary water, and would be a condition of recording the zone change ordinance.
2. Drawing not included as this is just a zone change application.

THIS ITEM WILL BE SCHEDULED FOR PLANNING COMMISSION ON AUGUST 4, 2022

Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

ORDINANCE NO: 44-2022

AN ORDINANCE APPROVING A ZONE DISTRICT DESIGNATION AMENDMENT AND ZONING DISTRICT MAP AMENDMENT LOCATED AT 105 SOUTH 500 WEST

WHEREAS, James Karren, authorized agent for the owner of property located at 105 South 500 West and further described by the legal description attached as Exhibit "A", has applied for an amendment to the Zone District and Zoning District Map; and

WHEREAS, the applicant seeks to have said parcel designated as R-2; and

WHEREAS, following a public hearing on August 4, 2022, the Lehi City Planning Commission reviewed the proposed Zoning District Designation and Zoning District Map amendment and forwarded it to the City Council to decide on the proposed amendment; and

WHEREAS, on August 23, 2022, the City Council held a duly noticed meeting to receive public comment and ascertain the facts regarding this matter, which facts and comments are found in the hearing record and which include the staff report, minutes from the Planning Commission meeting of August 4, 2022; and

WHEREAS, after considering the facts and comments presented to the Municipal Council, the Council finds: (i) the request for a Zone District Designation amendment and Zoning District amendment is consistent with the Lehi City General Plan Land Use Map adopted by the Lehi City Council on January 25, 2022 (and as subsequently amended); and (ii) such action furthers the health, safety and welfare of the citizens of Lehi.

NOW, THEREFORE, BE IT ORDAINED by the City Council of Lehi City, Utah as follows:

PART I:

The Zone District Designation and the Zoning District Map of the property described on Exhibit "A" are hereby amended to R-2.

PART II:

A. If a provision of this Ordinance -2022 conflicts with a provision of a previously adopted ordinance concerning the same title, chapter, and/or section number amended herein, the provision in this Ordinance shall prevail.

B. This ordinance and its various section, clauses and paragraphs are hereby declared to be severable. If any part, sentence, clause or phrase is adjudged to be unconstitutional or invalid, the remainder shall not be affected thereby.

C. The City Council hereby directs that the official copy of the Lehi City Code be updated to reflect the provisions enacted by this Ordinance.

D. This Ordinance shall take effect immediately after being posted or published as required by law.

Approved and Adopted by the City Council of Lehi City this 23rd day of August 2022.

ATTEST

_____ _____

Mark Johnson, Mayor Teisha Wilson, City Recorder

EXHIBIT “A”

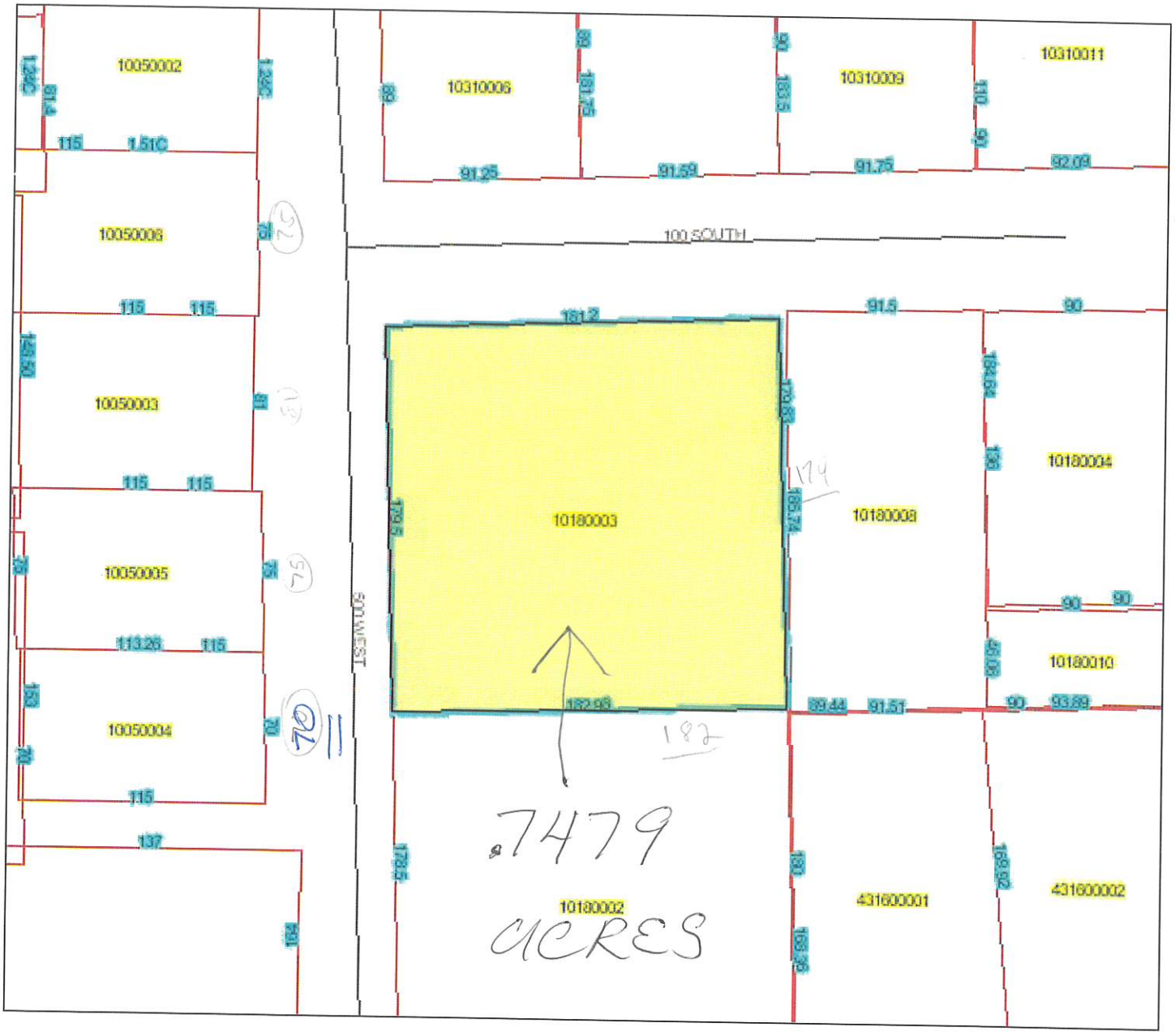
KARREN ZONE CHANGE PROPERTY LEGAL DESCRIPTION

ALL OF LOT 3, BLK 22, PLAT A, LEHI CITY SUR.

To: Lehi City Planning Dept.

Last year, I applied for an R1 Flex zoning change with the idea of selling my south lot of 1/3 acre. At the time, my property was not in the R2 zone district. With this new information, I Have the options of utilizing both my lots for selling or building either a duplex and house or two homes. My east property, which is 70 ft. wide, can be widened to 75 ft. by taking 5 ft off of my house lot. This would require a small change to my previous property survey, which I have shown on my attached drawing of my proposed sub division. Hopefully, once approved, I will hire my surveyor to make the necessary changes for submittal. I really want to start breaking ground this year on a 3 bed 2 bath duplex with a garage. I feel this is the best utilization of my property, which would bring in families without major costs to them. My area of Lehi doesn't require or need real large homes, just modest ones.

Thank You James T. Karren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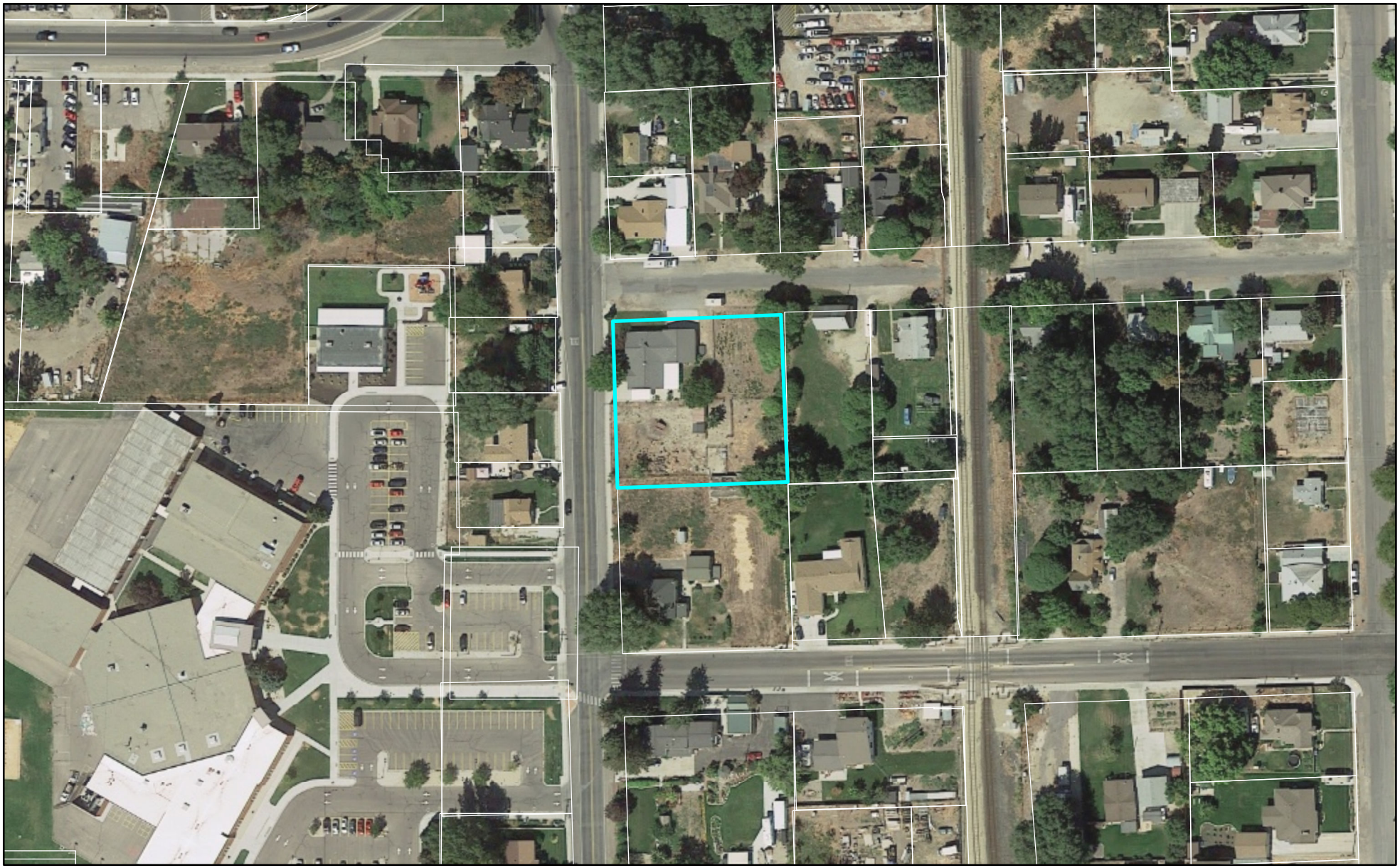
ACRES

Karren Zone Change

Aerial



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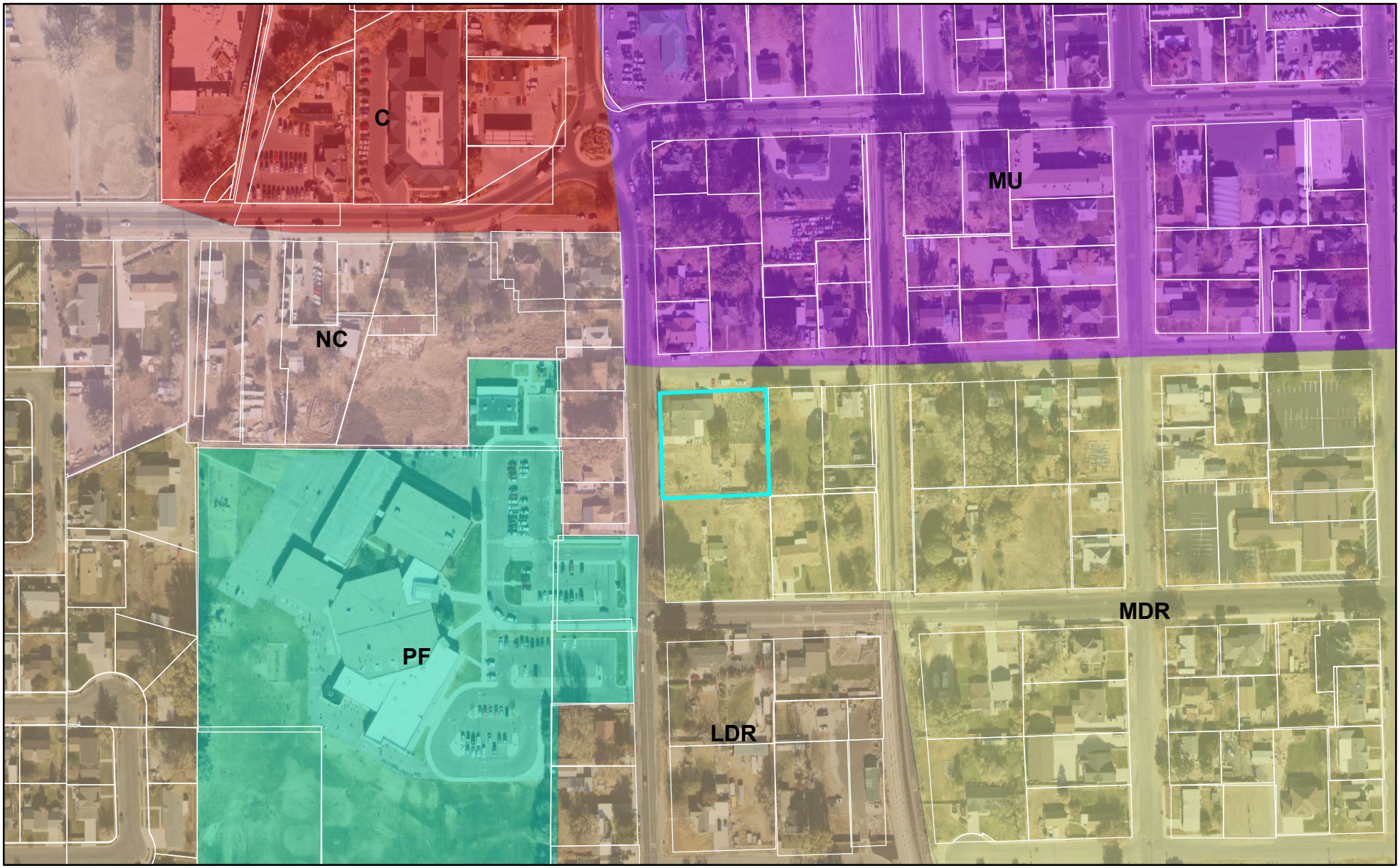
LEHI CITY

Karren Zone Change

General Plan



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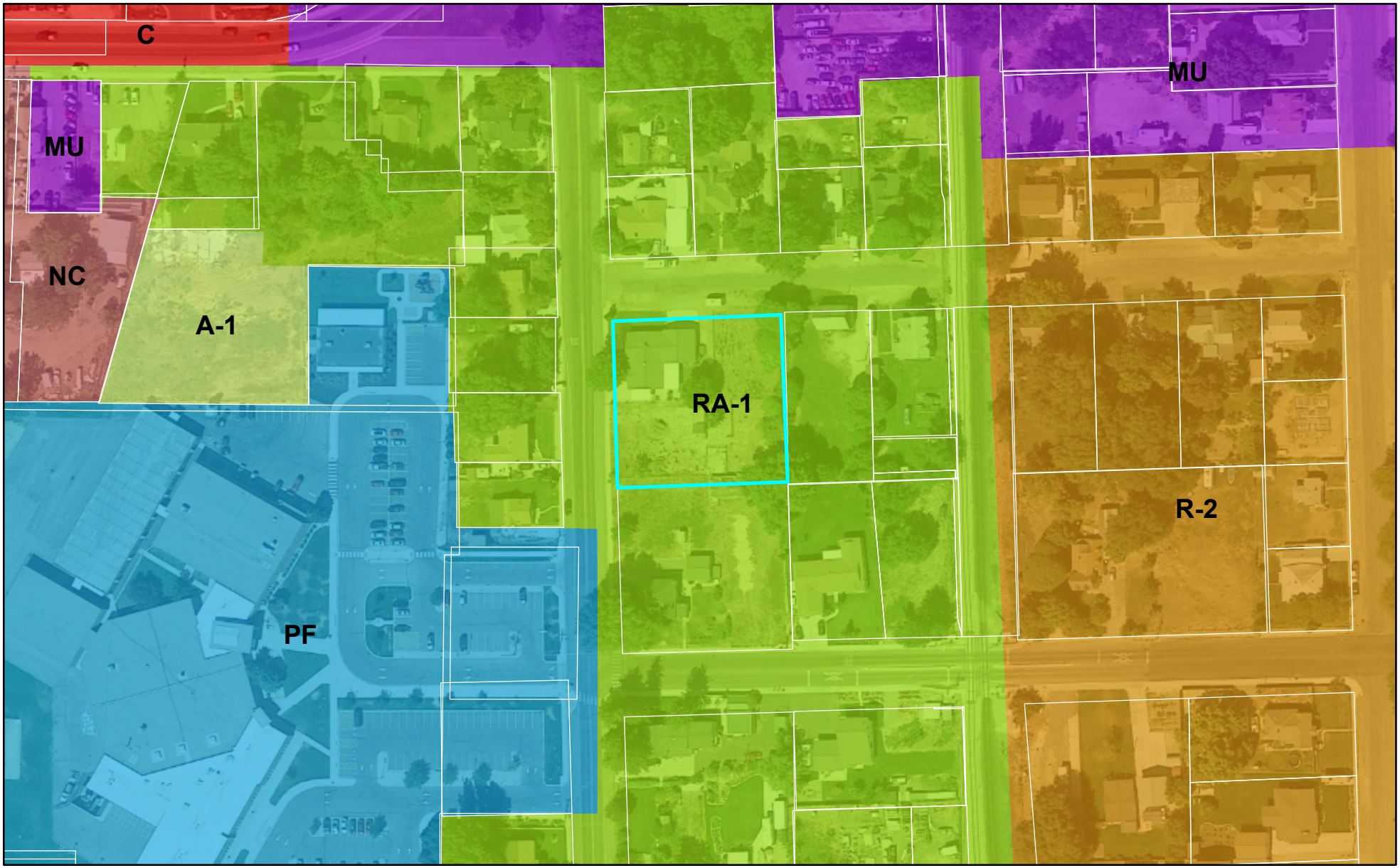
LEHI CITY

Karren Zone Change

Zoning



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LEHI CITY

Agenda Item No: 14

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Brittney Harris
Submitting Department: City Council
Item Type: Ordinance
Agenda Section: Regular Agenda

Subject:
Consideration of Ordinance #46-2022, approval of the Skye Area Plan amending the Micron Area Plan and including 2,436 equivalent residential units (ERUs), mixed-use space, a civic site, open space, trails and roadways. Located at approximately Timpanogos Highway and Center Street.

Suggested Action:

Attachments:

CC Staff Report Skye Area Plan 08.23.22.docx

Skye Area Plan DRC 07.27.22.docx

Ord 46-2022.doc

Skye Area Plan.pdf

Aerial Map.pdf

General Plan Map.pdf

Zoning Map.pdf

SKYE AREA PLAN

CITY COUNCIL REPORT

Applicant	DR Horton
Meeting Date	August 4, 2022
Requested Action/Purpose	Approval of a proposed area plan
Decision Type	Legislative
Date of DRC Review	July 27, 2022
Date of Planning Commission Review	August 4, 2022
Assigned Planner	Brittney Harris

REQUIRED ACTION

Planning Commission	Review and recommendation
City Council	Final approval

APPLICABLE DEVELOPMENT CODE REGULATIONS

Chapter 6 of the Development Code contains all of the regulations and standards that govern the creation of Planned Communities. Included below are some of the sections that contain general information that may be helpful to the Planning Commission in their review of the Skye Area Plan.

Section 06.010 Purpose and Intent.
The intent of the Planned Community Zone and this Chapter is to:

A. Allow the City to encourage and facilitate more detailed and specific planning and analysis for certain areas of the City.
B. Establish provisions and requirements which enable the City to address unique areas of the City or where other characteristics exist that warrant a comprehensive set of land use policies and standards which will encourage an efficient and imaginative development pattern.
C. Provide an opportunity for flexibility from the constraints of traditional zoning and allow for development on a performance basis. Higher density and intensity of uses may be achieved as higher quality development and performance standards are implemented within the zone.
D. Provide a consolidated and structured framework for the processing of preliminary and final subdivision plat(s), preliminary and final site plans, and other permits and licenses required by this Code.

An application for approval of a Planned Community Zone is a request by the applicant for additional flexibility beyond that allowed by the traditional zones within the City. It is the sole responsibility and burden of the applicant to convince the Planning Commission and City Council that the proposed Planned Community Zone is preferable to traditional zoning. Approval for use of the Planned Community Zone lies at the discretion of the City Council.

Section 06.020 Planned Community Description.
Each Planned Community Zone should include a cohesive mixture of land uses, including commercial and/or business park uses, which will provide services and employment opportunities to residents within the community. Residential uses should provide a range of housing types and densities to accommodate a variety of age and income groups and residential preferences, so that the community's demographic diversity is maintained. Commercial uses should focus on retail services for the residents of the community and must include a unifying design theme which compliments the residential areas. Residential and commercial land uses should be integrated to promote a walkable, sustainable community.

Development should promote creative lot configuration with usable public and private recreation areas, parks, trails and open space with assurance of maintenance. Preservation of open space and critical environmental areas is also highly encouraged through the use of clustering and other innovative development options where a standard lot pattern is not practical or desirable due to physical constraints.

Section 06.030 Design Compatibility.

Development within a Planned Community Zone should promote attractive, unified architectural design. Development should be planned as one complex land use with a common architectural design theme that provides variety within a context of architectural compatibility, rather than an aggregation of individual, unrelated buildings located on separate, unrelated lots. In order to ensure that development within the Planned Community Zone is compatible and meets the purposes of this Chapter, the Planning Commission may recommend and the City Council may require that certain design guidelines be employed as part of the approval of an Area Plan for a PC Zone. The design guidelines may include, but are not limited to, architectural controls, colors, materials, building mass, innovative design of buildings and access, and any other features deemed appropriate by the City Council. As part of the design guidelines for any Planned Community Zone each single family detached or attached dwelling shall include, as a minimum standard, an enclosed one (1) car garage.

REPORT ANALYSIS

The applicant requests approval of the Skye Area Plan amending the Micron Area Plan. The proposed area encompasses approximately 844 acres surrounding the existing Texas Instruments Building. The majority of the Area Plan encompasses the area to the west of the Texas Instruments; however, it also includes land on the northeast side.

The Micron Area Plan was approved in 2012 and two schools were built under this plan. DR Horton purchased the land from Micron in 2021 and submitted a concept plan for a new area plan that year. The City Council approved the concept plan on June 29, 2021.

Approval of the concept plan started the process of amending the full Micron Area Plan. The applicant worked with Staff over the course of the last year to prepare a new area plan that will guide development in this area. Once approved, the area plan will precede the Development Code in regulating development. However, if the area plan does not address an issue that the Development Code does, the Development Code still governs.

The proposed Area Plan includes six sections: Introduction, Land Use, Utilities, Traffic, Geotechnical, and Fiscals. Each of these sections will be discussed in greater detail.

Introduction

The introduction outlines the history of this site and the area plan. It includes blanks for the DRC, Planning Commission, and City Council dates of approval for reference in the future. It also includes the developer's vision for the area and a legal description of the area.

Land Use

The land use section contains a good deal of information requiring the most consideration by the City Council. It includes the overall land use plan, the table of uses, the table of bulk and intensity, design standards, buffers and open space, and deviations from the approval process. Each of these will be discussed separately as well.

Land Use Plan

The land use plan shows areas designated as mixed-use, school, civic, technical manufacturing buffer, open space, and various densities of residential.

The residential ranges from very low density with a maximum of two units per acre to high density with up to twelve units per acre. Mixed-Use also includes residential with up to 30 units per acre.

The Land Use plan also outlines the number of allowed ERUs with an overall cap at 2,436. However, this plan only shows 1,751 with the intent to include the rest if the Draper Municipal Boundary Adjustment is approved.

Table of Uses
The applicant provided two table of uses, one for the commercial zones and one for the residential.

The applicant shows some limited land uses as permitted in the Technical Manufacturing Buffer (TMB). The applicant expressed Texas Instruments' desire to use their land but also stated that they understand no ERUs were left for this land. The proposed table shows uses that may not require water as well as a note stating that the uses are to be subordinate to the primary use of Texas Instruments and that they must operate under the existing capacities granted to Texas Instruments.

Regarding the Mixed-Use zone, Staff encouraged the applicants to remove uses that do not promote walkability and a sense of community. Manufacturing and warehouse uses tend to promote cars and driving. As such, Staff recommended the applicant remove them as permitted uses. The applicant did add "with no outdoor storage" to these uses to try to mitigate some of the negative impacts. Planning Staff still holds the opinion that these uses should not be allowed in this development in order to create a vibrant neighborhood. Conversations have continued to happen with the applicant since Planning Commission meeting and the applicant may propose additional regulations to ensure quality development in these Mixed-Use zones.

The rest of the commercial table and residential table are very similar to the tables in the Development Code.

Table of Bulk and Intensity
The applicant also provided a bulk and intensity table for both the commercial and residential zones. They included a ten percent landscape requirement for the mixed-use zone and an 80 percent open space/native area requirement for the Technical Manufacturing Buffer. Staff recommended this percentage to ensure that the TMB remains a buffer space while still allowing Texas Instruments to utilize the land they own. Texas Instruments has since mentioned they may want to increase this number to allow for solar panels or other uses of their land. Planning Staff recommends that some provisions exist to help maintain the intended use of that space as a buffer between the Texas Instrument building and surrounding residential uses.

The residential bulk and intensity table has similar requirements to other area plans and includes rear yard requirements for rear loaded driveways. It allows for small driveways that do not allow parking of cars or driveways that are long enough to park a car and not block the sidewalk or roadway.

Design Standards
DR Horton proposes several deviations from the existing residential design standards specifically related to townhomes and single-family homes.

First, they propose that only 20 percent of the townhomes be rear load instead of the 50 percent required by the City's Development Code. They cite topography as the reason for this deviation.

They also propose new design standards for single family homes and townhomes. They propose an Architectural Review Committee composed of three DR Horton employees to review and approve elevations. They propose five architectural design categories with requirements for the different categories. They also would allow pods of the same style of homes to create cohesive neighborhoods. They would also require diversity of style next to each other by not allowing the same floor plan or color scheme adjacent or across the street.

The five design styles include: Farmhouse, Craftsman, Prairie, Transitional and Modern. Again, each of these have a description of what types of materials, windows, features, and colors they should include. However, it also allows a great amount of flexibility in interpretation and enforcement of the requirements. Planning Staff left a comment that the applicant bears the burden of proof that these requirements provide a more optimal outcome then the existing Development Code Design Requirements.

The applicant also includes parking requirements that mostly mirror the existing Code requirements. However, Staff recently recommended changes to not count tandem parking towards the required number of stalls and to include a proximity requirement. The applicant's proposal does not reflect these changes. The applicant also includes a statement that street parking can count towards the guest stalls.

Buffers and Open Space
The applicant includes a map that shows the location of open space including natural trail corridors. This section also includes information about the total 92 acres of open space that will be provided and also tabulations about the amount of private and public open space in each pod.

Approval Process Deviations
The applicant proposes deviations from the normal approval process for subdivisions and site plans. They propose removing some of the application requirements and allowing the final plat approval process to be by the reviewing departments and not the City Council. These proposals match the requirements of both the Holbrook and Cold Spring Ranch Area Plans.

The applicant also proposes approval by the reviewing departments for site plans unless they are for a conditional use or request an exception from either the Skye Area Plan or Lehi City Development Code.

Utilities
The utilities section reviews the requirements for power, water, and sewer. The applicant worked with the Power Department and Public Works to make sure utilities will work throughout the site.

The applicant will have to provide new sources and storage facilities for both culinary and pressurized irrigation water to serve this area plan. Some existing capacity exists allowing them to complete a limited number of buildings before the required infrastructure is in place.

Traffic
The traffic section includes a traffic study indicting the anticipated traffic volumes and recommended road cross sections. It also includes the applicant's proposed road network and street cross sections.

The applicant worked with Staff to reduce the width of the cross sections in an effort to decrease speeding problems by design. Many of the cross sections also include trails and shoulders for parking. They also include planter strips that are usually seven feet in width with a five-foot planter that already exist based on the old Area Plan and City requirements.

Geotechnical
The geotechnical report reviews the soils throughout the site and recommendations for drainage and other building requirements based on the soil type and water levels. This information will guide requirements for future subdivision and building plan applications.

Fiscals
The fiscal section outlines the reimbursable public improvements that the developer will build and dedicate to the City. The impact fees generated by this project will cover these public improvements. This section outlines the cost for power, sewer, storm water, culinary, pressurized irrigation, and parks.

DRC Comments
The DRC reviewed the proposed Area Plan and had 14 redline comments. Many of these were discussed above. Some others include:

1. Provide a map and language addressing the Wildland Urban Interface and areas that will be impacted by residential fire sprinkler regulations. (areas adjacent to natural vegetation)
2. Need to finalize details with TSSD about what off-site improvements are required
3. Finalize coordination water source and storage
4. Finalize coordination on fiscal analysis
5. It is still recommended to provide a trail link on the south side of the Civic 1 Parcel that connects to Trail 5, and perhaps there is a way to fit it in the existing ROW or reduce the planter strip to 2' with a 10' trail.
6. Concerned with the scale of some of the warehouse/ industrial uses and whether or not they support the residents of the area.

Special Consideration Items
The City Council may want to consider the proposed design requirements including the design standards for townhomes and single family and if they should replace the existing Development Code Design Requirements. As well as the Planning Commission's motion that a member of the community should be on the architectural review committee and that Staff should review the plans.

The City Council should also consider the proposed parking deviations and if tandem and on street parking should count toward the required stalls including the Planning Commission motion that the area plan should incorporate Lehi City's new parking requirements.

City Council may want to consider allowing the reviewing departments to approve all site plans that do not request an exception or are for a conditional use.

The City Council should also consider the other items included in the Planning Commission motion.

POSSIBLE MOTIONS AND FINDINGS

The City Council may approve or deny the proposed area plan. Any motion should include findings. Possible findings include:

1. The proposed area plan will/will not provide a quality community in Lehi City.
2. The proposed area plan contains/does not contain regulations that will provide quality development.
3. The proposed area plan is consistent/is not consistent with the approved concept plan.
4. The proposed area plan does/does not meet the requirements of the Lehi City Development Code in regards to area plan approval.
5. Other findings based upon information presented during the public hearing.

PLANNING COMMISSION RECOMMENDATION

The Planning Commission reviewed the proposed area plan on August 4, 2022. The minutes and motion from that meeting will be attached separately.

Skye Area Plan
DRC Redline Comments

DR Horton- requests review of the Skye Area Plan, amending the Micron Area Plan located north of SR-92 and east of 500 West.

DRC Members Present: Glade Kirkham, Garion Rowett, Greg Allred, Ryan Allred, Jacob Hernandez, Kim Struthers, Gary Smith, Ross Dinsdale, Trent Dyer
Representatives of the Applicant Present: Adam Loser and Ben Tuckett
Date of Plans Reviewed: 7/19/22
Time Start: 1:10pm
Time End:

DRC REDLINE COMMENTS:
Glade – Power: No comments
Garion – Fire:
1. Provide a map and language addressing the Wildland Urban Interface and areas that will be impacted by residential fire sprinkler regulations. (areas adjacent to natural vegetation)

Greg/Ryan – Water/Sewer:
2. Change SD pipe 148 to an 18" line on sheet E1
3. I question your ability to build a booster station for $675,000.
4. Water and PI source must be provided, not "determined and approved" prior to approval of any building permits

Trent – Parks: No comments
Gary – Building/Inspections: No comments
Jacob – Public Works: No comments
Ross – Engineering:
5. Need to finalize details with TSSD about what off-site improvements are required
6. Finalize coordination water source and storage
7. Finalize coordination on fiscal analysis

Kim – Planning:
8. Consider including some criteria for when front-load will be used instead of rear-load
9. Concerned with the scale of some of the warehouse/ industrial uses and whether or not they support the residents of the area.
10. It is still recommended to provide a trail link on the south side of the Civic 1 Parcel that connects to Trail 5, and perhaps there is a way to fit it in the existing ROW or reduce the planter strip to 2' with a 10' trail.
11. On the Site Plan Approval Process, add to the statement that it can be approved by the Reviewing Departments (instead of administrative) except in the case that the site plan is a conditional use or seeking an exception.
12. The applicant is responsible for providing justification that the proposed design guidelines provide more optimal outcomes then the Lehi City Design Requirements. The Planning Commission and City Council do not have to approve the proposed regulations
13. Planning Staff does not support counting tandem parking towards the required amount. The greatest parking issues in the city have happened near condos where tandem parking counted. And also including a proximity requirement for multi-family.
14. Include an appendix with the existing applications that will be used for the Area Pan (so we know what the numbers are referencing in the deviations from the subdivision application). Double check that the listed numbers are currently accurate with the application.

GENERAL COMMENTS
1. Where is/are the utility tie(s) going east-west?
2. I don't see a reasonable road access for a transport to the potential substation site shown.

THIS ITEM IS SCHEDULED FOR PLANNING COMMISSION ON AUGUST 4th

Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

ORDINANCE NO: 46-2022

AN ORDINANCE APPROVING AND ADOPTING THE SKYE AREA PLAN FOR PROPERTY LOCATED AT APPROXIMATELY SR-92 AND CENTER STREET

WHEREAS DR HORTON ("Developer"), developer of approximately 844 acres located at approximately SR-92 and Center Street and further described by the legal description attached as Exhibit "A", have applied for an Area Plan approval; and

WHEREAS, the Lehi City Council, acting pursuant to its authority and Utah Code, and in furtherance of its land use policies, goals, objectives, ordinances and other requirements, has made certain determinations with respect to the Developers' proposals for the Skye Area Plan; all as set forth in that certain area plan designated as the Skye Area Plan, a copy of which has been filed with the office of the Lehi City Planning Department;

WHEREAS, following a public hearing on August 4, 2022, the Lehi City Planning Commission reviewed the proposed Area Plan and forwarded a recommendation that the City Council adopt the proposed request; and

WHEREAS, on August 23, 2022, the City Council held a duly noticed meeting to ascertain the facts regarding this matter, which facts and comments are found in the public record and which include the staff report, minutes from the Planning Commission meeting of August 4, 2022, and the recommendation of the Planning Commission; and,

WHEREAS, after considering the facts and comments presented to the Municipal Council, the Council finds: (i) the request for an Area Plan Designation is consistent with the Lehi City General Plan Land Use Map adopted by the Lehi City Council on January 25, 2022 (and as subsequently amended); and (ii) such action furthers the health, safety and welfare of the citizens of Lehi.

NOW, THEREFORE, BE IT ORDAINED by the City Council of Lehi City, Utah as follows:

SECTION 1. The Area Plan together with all the attached exhibits, maps and supporting documents designated as the "Skye Area Plan" dated August 23, 2022, copies of which are on file with the Planning Division of the Community Development Department, is hereby adopted as the Area Plan for the development of Skye. Said project is described on attached Exhibits A and B.

SECTION 2. Unless specifically modified by the Skye Area Plan, the owner of the Subject Property or its assigned agents will be required to comply with all applicable requirements of Lehi City necessary for approval of the Project, including payment of fees and compliance with applicable ordinances, regulations, policies and procedures of Lehi City including but not limited to, the Lehi City Municipal Code, the Lehi City Development Code, and the Lehi City Design

Standards and Public Improvements Specifications.

SECTION 3. The action of the City undertaken hereby is administrative in nature, falling within the general purpose and policy of the General Plan and zoning ordinances, and pursuant to the provisions of the Lehi City Development Code, and the obligations and requirements imposed on the City by ordinance and agreement.

SECTION 4. If a provision of this Ordinance -2022 conflicts with a provision of a previously adopted ordinance concerning the same title, chapter, and/or section number amended herein, the provision in this Ordinance shall prevail.

SECTION 5. This ordinance and its various section, clauses and paragraphs are hereby declared to be severable. If any part, sentence, clause or phrase is adjudged to be unconstitutional or invalid, the remainder shall not be affected thereby.

SECTION 6. This Ordinance adopting the Area Plan shall be effective immediately after being posted or published as required by law.

Approved and Adopted by the City Council of Lehi City this 23rd day of August 2022.

ATTEST

_____ _____

Mark Johnson, Mayor Teisha Wilson, City Recorder

Exhibit A
Legal Description for the Skye Area Plan

AREA PLAN BOUNDARY

A portion of Sections 27, 28, 29, 32, 33, & 34, Township 4 South, Range 1 East, Salt Lake Base & Meridian, more particularly described as follows:

Beginning at a point on the existing Draper City Corporate Limits, being the Northeast Corner of Section 28, T4S, R1E, S.L.B.&M.; thence S0°01'27"E along the section line and limits of Draper City 1,133.33 feet; thence N77°15'00"E along said limits of Draper City 30.76 feet to a common point between the Corporate Limits of Draper and Lehi City; thence along said limits of Draper and Lehi City the following two (2) courses: N77°15'00"E 924.26 feet; thence N38°15'00"E 630.96 feet; thence along the Draper City Limits the following four (4) courses: N53°15'00"E 1,310.10 feet; thence N62°30'00"E 304.92 feet; thence N62°15'00"E 989.34 feet; thence N66°30'00"E 498.00 feet; thence S0°10'09"W 1,149.28 feet; thence S0°07'04"W 1,327.82 feet to a point on the Highland City Corporate Limits; thence along said Highland City limits S89°50'18"W 1,322.45 feet to a point on the 1/4 section line of Section 27 and also being a common point between the Corporate Limits of Highland and Lehi City; thence S0°03'31"W along said Highland and Lehi City limits 828.16 feet; thence along a parcel owned by Lehi City described in Deed Entry #21542:2004 of the official records of Utah County the following five (5) courses: N89°59'45"W 421.17 feet; thence S45°00'15"W 374.57 feet; thence S9°32'30"E 475.44 feet; thence S41°14'22"E 221.15 feet; thence S89°59'45"E 460.73 feet to a common line between the corporate limits of Highland and Lehi City; thence along said Highland and Lehi City limits the following six (6) courses: S0°02'53"W 929.33 feet; thence S89°49'14"W 581.72 feet; thence S3°50'00"W 759.58 feet; thence along the arc of a 398.77 foot radius curve to the left 195.96 feet through a central angle of 28°09'21" (chord: S10°14'40"E 193.99 feet); thence S24°19'21"E 490.99 feet; thence S9°40'00"E 809.49 feet; thence S0°00'53"E 219.56 feet to a point on the northerly right-of-way of SR 92; thence S89°41'46"W along said SR 92 right-of-way 991.12 feet; thence along a parcel owned by IM Flash Technologies described in Deed Entry #27515:2006 of the official records of Utah County the following eight (8) courses: N1°24'55"E 3,122.95 feet; thence N74°13'59"W 1,731.40 feet; thence N7°33'40"W 420.33 feet; thence S75°22'03"W 982.07 feet; thence S14°37'57"E 368.81 feet; thence S53°05'43"W

1,215.74 feet; thence S83°28'30"W 283.68 feet; thence S4°02'30"E 2,637.05 feet to a point on the northerly line of the SR 92 right-of-way line; thence along said northerly line the following eleven (11) courses: N85°20'47"W 195.38 feet; thence N76°45'45"W 151.45 feet; thence N87°29'10"W 1,003.38 feet; thence N81°39'33"W 810.94 feet; thence along the arc of a 9520.00 foot radius curve to the left 1,033.41 feet through a central angle of 6°13'21" (chord: N84°46'13"W 1,033.41 feet); thence N87°52'54"W 624.68 feet; thence S82°16'46"W 411.05 feet; thence S81°44'55"W 256.74 feet; thence S79°17'24"W 151.12 feet; thence S83°06'15"W 292.19 feet; thence S89°59'46"W 306.36 feet; thence North 2,240.15 feet; thence S89°56'34"E 742.01 feet; thence N0°03'14"W 2,675.52 feet to a common point between the corporate city limits of Draper and Lehi City; thence along said Draper and Lehi City line the following five (5) courses: S89°51'57"E 1,332.63 feet; thence S0°10'49"W 1,343.28 feet; thence S89°50'25"E 2,657.75 feet; thence N0°01'09"W 683.12 feet; thence N76°00'00"E 1,248.44 feet; thence N0°01'47"W 1,674.53 feet; thence S89°50'13"E 1,447.16 feet to the point of beginning.

Contains: 844.30± Acres

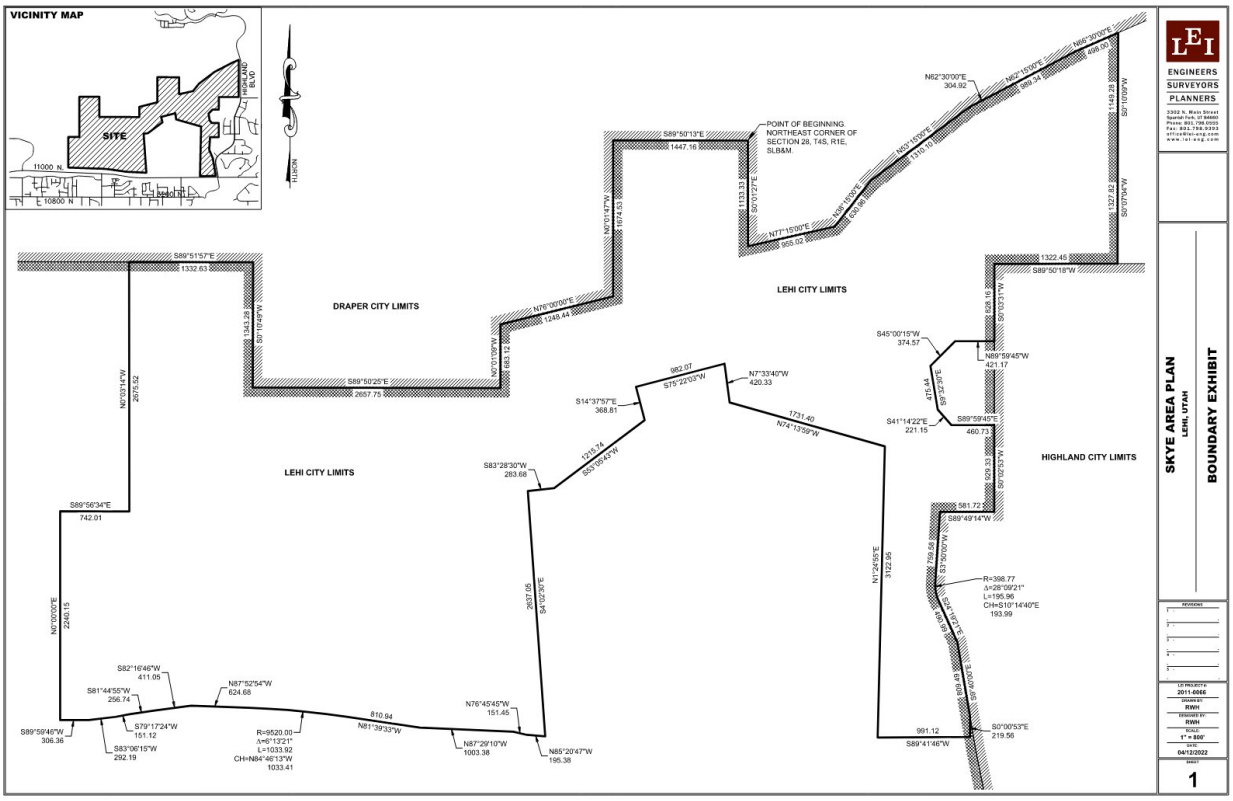
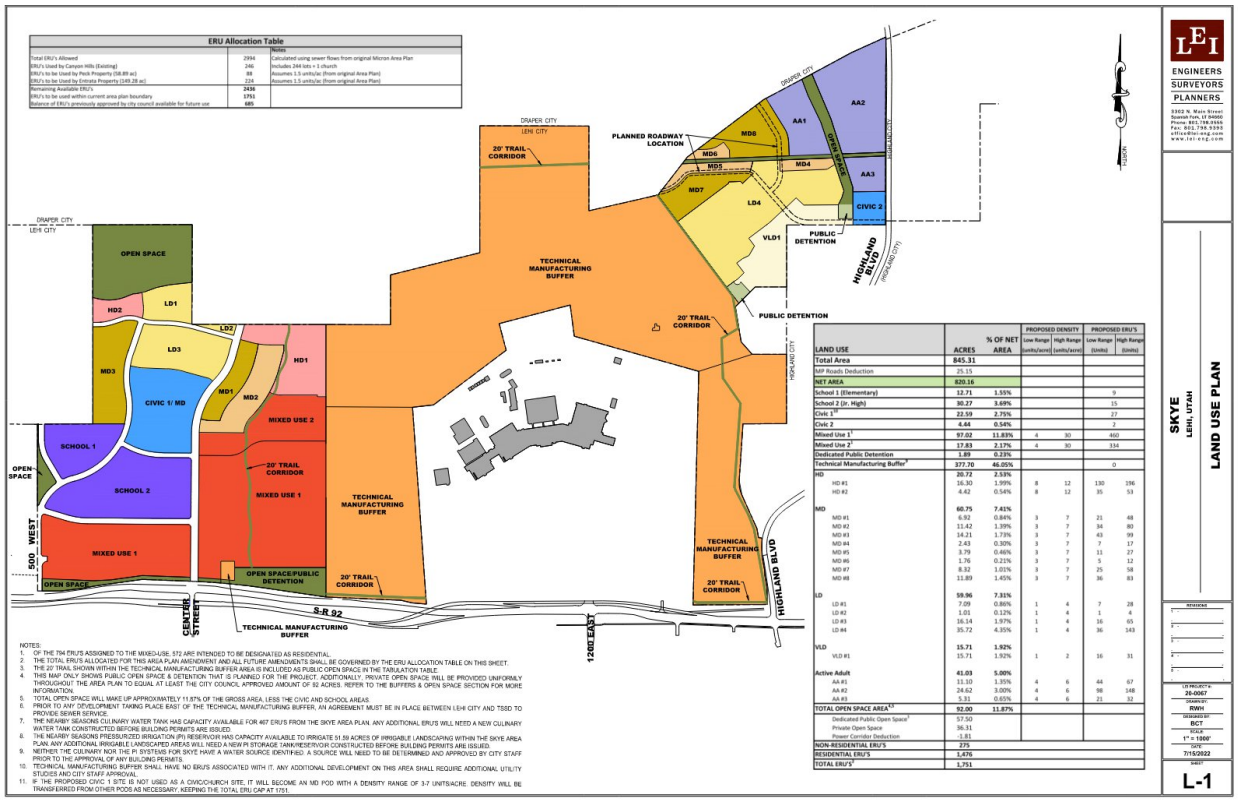

VICINITY MAP
SITE
11000 N.
10800 N
NORTH
POINT OF BEGINNING.
NORTHEAST CORNER OF
SECTION 28, T4S, R1E,
SLB&M.
DRAPER CITY LIMITS
LEHI CITY LIMITS
HIGHLAND CITY LIMITS
S89°51'57"E
1332.63
S89°50'25"E
2657.75
S89°50'13"E
1447.16
S89°50'18"W
1322.46
S89°56'34"E
742.01
S89°49'14"W
581.72
S89°59'46"W
306.36
S89°41'46"W
991.12
S0°00'53"E
219.56
R=398.77
Δ=28°09'21"
L=195.96
CH=S10°14'40"E
193.99
R=9520.00
Δ=6°13'21"
L=1033.92
CH=N84°46'13"W
1033.41
SKYE AREA PLAN
LEHI, UTAH
BOUNDARY EXHIBIT
ENGINEERS
SURVEYORS
PLANNERS
2011-0066
RWH
RWH
1" = 800'
04/12/2022
1

Exhibit B
Land Use Plan



LAND USE	ACRES	% OF NET AREA	PROPOSED DENSITY Low Range (units/acre)	PROPOSED DENSITY High Range (units/acre)	PROPOSED ERU'S Low Range (Units)	PROPOSED ERU'S High Range (Units)
Total Area	**845.31**					
MP Roads Deduction	25.15					
NET AREA	**820.16**					
School 1 (Elementary)	**12.71**	**1.55%**			9	
School 2 (Jr. High)	**30.27**	**3.69%**			15	
Civic 1[4]	**22.59**	**2.75%**			27	
Civic 2	**4.44**	**0.54%**			2	
Mixed Use 1[1]	**97.02**	**11.83%**	4	30	460	
Mixed Use 2[1]	**17.83**	**2.17%**	4	30	334	
Dedicated Public Detention	**1.89**	**0.23%**				
Technical Manufacturing Buffer[2]	**377.70**	**46.05%**			0	
HD	**20.72**	**2.53%**				
HD #1	16.30	1.99%	8	12	130	196
HD #2	4.42	0.54%	8	12	35	53
MD	**60.75**	**7.41%**				
MD #1	6.92	0.84%	3	7	21	48
MD #2	11.42	1.39%	3	7	34	80
MD #3	14.21	1.73%	3	7	43	99
MD #4	2.43	0.30%	3	7	7	17
MD #5	3.79	0.46%	3	7	11	27
MD #6	1.76	0.21%	3	7	5	12
MD #7	8.32	1.01%	3	7	25	58
MD #8	11.89	1.45%	3	7	36	83
LD	**59.96**	**7.31%**				
LD #1	7.09	0.86%	1	4	7	28
LD #2	1.01	0.12%	1	4	1	4
LD #3	16.14	1.97%	1	4	16	65
LD #4	35.72	4.35%	1	4	36	143
VLD	**15.71**	**1.92%**				
VLD #1	15.71	1.92%	1	2	16	31
Active Adult	**41.03**	**5.00%**				
AA #1	11.10	1.35%	4	6	44	67
AA #2	24.62	3.00%	4	6	98	148
AA #3	5.31	0.65%	4	6	21	32
TOTAL OPEN SPACE AREA[3]	**92.00**	**11.87%**				
Dedicated Public Open Space[3]	57.50					
Private Open Space	36.31					
Power Corridor Deduction	-1.81					
NON-RESIDENTIAL ERU'S	**275**					
RESIDENTIAL ERU'S	**1,476**					
TOTAL ERU'S[5]	**1,751**					

Section 1 – Introduction

- Executive Summary
- Introduction & Narrative
- Boundary Description & Map
- Development Design & Guidelines

Micron Area Plan – Skye Area Plan

Executive Summary

History

1. Micron created an Area Plan which was approved by Lehi City in 2012. However, Micron never moved forward with developing or platting the approved Area Plan Development.
2. Micron worked with the Alpine School District and sold them land to build an Elementary School and a Middle school within the approved Area Plan. The schools were built between 2017 and 2021.
3. Micron sold most of the land that was included in the approved Area Plan and included all vested density (ERU's) to D.R. Horton in 2021.
4. When DR Horton acquired the property, the property was in three jurisdictional boundaries, Lehi City, Draper City and Utah County. D.R. Horton is working to have the entire property annexed into Lehi City.
    a. D.R. Horton annexed the Utah County parcel into Lehi which was recorded in April of 2022. This portion of land that was contemplated to be a part of the Area Plan is now in Lehi City.
    b. D.R. Horton is currently working with Lehi and Draper to adjust the boundary line between the two cities and so that the rest of the property that was sold to D.R. Horton by Micron is in Lehi City. Once this is complete, D.R. Horton will work with Lehi City to amend the area plan again to include this additional property.
    c. The Project has now been re-named Skye
5. In the end of 2021, Micron sold the rest of its property and the manufacturing plant to Texas Instruments. This property is not part of the Area Plan.

Purpose of the Amendment

With the current area plan being 10 years old, it is outdated and does not capture the best use of the land for the area or for the city. The school site locations have changed and the buffer (restricted open space from the old Area Plan) between the existing manufacturing plant and the new development has been enlarged. The amendment of the Area Plan will transfer many of the approved ERU's that were designated as commercial use to a residential use. It will also only use a portion of the vested ERU's in the current Area Plan with the intent to use the excess ERU's in the future after bringing in additional land (that is currently in Draper) into the Area Plan.

It is important to note that the proposed amendment will maintain the same acreage in the area plan while the unit count is being decreased. As such, the amended area plan will include a decrease in the overall density. It is anticipated that there will be a second amendment to the area plan that will "bring in" to the area plan additional acreage and additional ERU's will be planned and included at that time. Where applicable, utility and traffic planning and design in this current amendment have been upsized and or designed in anticipated of the additional acreage and ERUs.

Process and Procedure to Amend the Area Plan

This currently proposed amendment will take place in the following steps.

1. Concept Plan Approval: This was granted by Lehi City Council in 2021.
2. Annex Utah County unincorporated land on the east side of the property into Lehi City limits: This was completed and recorded in April 2022.
3. Lehi City DRC Area Plan Amendment approval/recommendation.
   Approval Date:_____
4. Lehi City Planning Commission approval/recommendation.
   Approval Date:_____
5. Lehi City Council Approval.
   Approval Date:_____

In the future, a second amendment is planned that will include the following steps:

1. Adjust the boundary line between Draper and Lehi which will move the remainder of D.R. Horton's land from Draper into Lehi City limits.
2. Concept Plan Approval.
3. Lehi City DRC Area Plan Amendment approval/recommendation.
4. Lehi City Planning Commission approval/recommendation.
5. Lehi City Council Approval.

Skye Area Plan Introduction/Narrative

The Vision

D.R. Horton is pleased to have the opportunity to present a narrative of the development approach for its master-planned community in Lehi, Utah called the Skye Area Plan. There is a currently approved area plan called the Micron Area Plan for this specific location that we are proposing to amend.

Our goal is to create a master-planned, resort style residential community with some high-quality office, professional, retail, and other mixed-use commercial areas. The entire area will be well-connected by trails, walkways and open space corridors that will allow access to both commercial and professional areas as well as to the foothills and other native areas. The residential development area will be a well-planned cohesive community with a variety of home products and price points.

The site of approximately 845 acres is ideally situated in the “Silicon Slopes” area along the growing economic corridor framed by Salt Lake City and Provo. The location of this development allows for quick access to I-15 and SR 92 providing realistic commutes from and to both Salt Lake and Utah Counties. The master planned development will be an incredible place to work and live. It could easily be argued that there is no better or more centralized place to work or live in the metropolitan areas of the State of Utah.

Utah’s population today stands at approximately 3.3 million. Forecasts indicate that Utah is poised for continued rapid growth over the next several decades. Given Lehi’s ideal location described above, and the physical attributes of the site, this development will strengthen Lehi’s identification as a leading tech-industry and residential community destination. It will also provide homes for the many talented people and their families that work here now or in the future.

The master planning of this development contemplates the existing grades, landscape attributes and surrounding land uses to create an amazing place to live and work. The gem amenity of this development will be the trail systems and connectivity to residential, commercial, and natural/native areas of the land. The plan also allows for connectivity with adjacent properties to the North, West, and East. We are committed to these design concepts, as we are convinced that they will assure that we achieve an appropriately scaled, cohesive “workplace neighborhood” that is socially engaging, visually attractive, while providing a backdrop for a high quality of life. The plan respects and enhances the natural landscape, fits with existing streets and intersections, and promotes walking and connection with adjacent trails.

Commercial Building Construction

The building and construction materials used for the commercial buildings will be those materials which are typically utilized in class “A” properties and considered environmentally sustainable. The construction process for these buildings will prioritize strategies and tactics that minimize the impact on the environment, improve the surroundings and enhance the workplace experience for building tenants. All buildings will be LEED designed and implement state of the art technology in energy efficiency. Architectural designs will reflect a timeless quality, preserving the value of individual buildings and other properties within the project with the use of materials that are environmentally friendly as well as aesthetically pleasing. Supporting parking areas will be heavily and sustainably landscaped, pervious where possible, sloped or terraced to minimize grading, and where slope permits tucked under buildings.

Walkway easements will be utilized to allow ease of walking to and from the “social heart” for all occupants of the project. Commercial buildings will capitalize on this site’s pristine location and be built and situated in a way that enhances tenants' views of the surrounding area’s beauty, while simultaneously adding to that beauty.

Residential Construction

The plan envisions a wide variety of product types and designs, that will attract a diverse community of residents in various stages of life and income. Residential products of apartments, townhouses, active adult homes, small cottage-size single family homes and larger more custom homes will all be available within the development. The developer will control the architecture, materials, and colors to achieve compatibility and harmony with the over-all design of the community.

Roadways and Access

Access to the site is primarily off SR-92 which borders to the South. Access points will be located at 500 West, Center Street, and Highland Boulevard (note - Highland Blvd., unlike the other addressing streets, is within Highland City) in addition, there will be access to adjacent properties to the West.

Community Features

Given the variety of planned land uses in the project and the availability of community resources, achieving a highly functioning cohesive community will be easily achievable and will truly set the community apart. The resources need to address the need and market demand for a variety of housing options and price points. It also needs to address the educational, recreational, civic and service needs of the community. To meet these needs, the Area Plan envisions the following facilities. First, approximately 43 acres has already provided for the development of a Middle School and an Elementary School. An additional 27 acres or so has been allocated for church/civic sites that will be a great benefit to the community. Approximately 70 acres will be dedicated to commercial, retail, office and mixed-use developments as the market demands in that area. Examples of these mixed-uses could include small grocery and pharmacy facilities, restaurants, dry cleaning/laundry, banks, misc. retail, and professional services such as lawyers, doctors, and accountants. There will be many types of residential home products for all sizes and types of families in all stages of life.

Trail Corridors and Open-Space

A series of trails and trail corridors will follow existing site features such as natural drainage corridors and existing vegetation areas and along newly designed streets. The trail corridors will be dedicated to the City of Lehi and reserved for public access and use. The trails will lead to recreation areas, trails, and zones for native habitat. Landscaping and planting will be focused on native plantings and water-wise conservation practices. In total, around 91 acres of land will be dedicated as open space with a combination of both private and public amenities. Trail systems and corridors will tie all these spaces together and will also allow access to new trailheads that lead into the amazing foothills and natural space to the north of the development.

Approximately 379 acres will remain as a technical manufacturing buffer for the purpose of providing space and to house the utilities for the currently Texas Instruments-owned plant operation. The public will not have access to this area for recreational purposes except for designated public trail corridors that may run through the restricted open space as shown on the area plan.

ENGINEERS
SURVEYORS
PLANNERS

LEGAL DESCRIPTION

PREPARED FOR

SKYE AREA PLAN

UTAH COUNTY, UTAH

AREA PLAN BOUNDARY

A portion of Sections 27, 28, 29, 32, 33, & 34, Township 4 South, Range 1 East, Salt Lake Base & Meridian, more particularly described as follows:

Beginning at a point on the existing Draper City Corporate Limits, being the Northeast Corner of Section 28, T4S, R1E, S.L.B.&M.; thence S0°01'27"E along the section line and limits of Draper City 1,133.33 feet; thence N77°15'00"E along said limits of Draper City 30.76 feet to a common point between the Corporate Limits of Draper and Lehi City; thence along said limits of Draper and Lehi City the following two (2) courses: N77°15'00"E 924.26 feet; thence N38°15'00"E 630.96 feet; thence along the Draper City Limits the following four (4) courses: N53°15'00"E 1,310.10 feet; thence N62°30'00"E 304.92 feet; thence N62°15'00"E 989.34 feet; thence N66°30'00"E 498.00 feet; thence S0°10'09"W 1,149.28 feet; thence S0°07'04"W 1,327.82 feet to a point on the Highland City Corporate Limits; thence along said Highland City limits S89°50'18"W 1,322.45 feet to a point on the 1/4 section line of Section 27 and also being a common point between the Corporate Limits of Highland and Lehi City; thence S0°03'31"W along said Highland and Lehi City limits 828.16 feet; thence along a parcel owned by Lehi City described in Deed Entry #21542:2004 of the official records of Utah County the following five (5) courses: N89°59'45"W 421.17 feet; thence S45°00'15"W 374.57 feet; thence S9°32'30"E 475.44 feet; thence S41°14'22"E 221.15 feet; thence S89°59'45"E 460.73 feet to a common line between the corporate limits of Highland and Lehi City; thence along said Highland and Lehi City limits the following six (6) courses: S0°02'53"W 929.33 feet; thence S89°49'14"W 581.72 feet; thence S3°50'00"W 759.58 feet; thence along the arc of a 398.77 foot radius curve to the left 195.96 feet through a central angle of 28°09'21" (chord: S10°14'40"E 193.99 feet); thence S24°19'21"E 490.99 feet; thence S9°40'00"E 809.49 feet; thence S0°00'53"E 219.56 feet to a point on the northerly right-of-way of SR 92; thence S89°41'46"W along said SR 92 right-of-way 991.12 feet; thence along a parcel owned by IM Flash Technologies described in Deed Entry #27515:2006 of the official records of Utah County the following eight (8) courses: N1°24'55"E 3,122.95 feet; thence N74°13'59"W 1,731.40 feet; thence N7°33'40"W 420.33 feet; thence S75°22'03"W 982.07 feet; thence S14°37'57"E 368.81 feet; thence S53°05'43"W

- Civil Engineering
- Structural Engineering
- Surveying
- Land Planning
- Landscape Architecture

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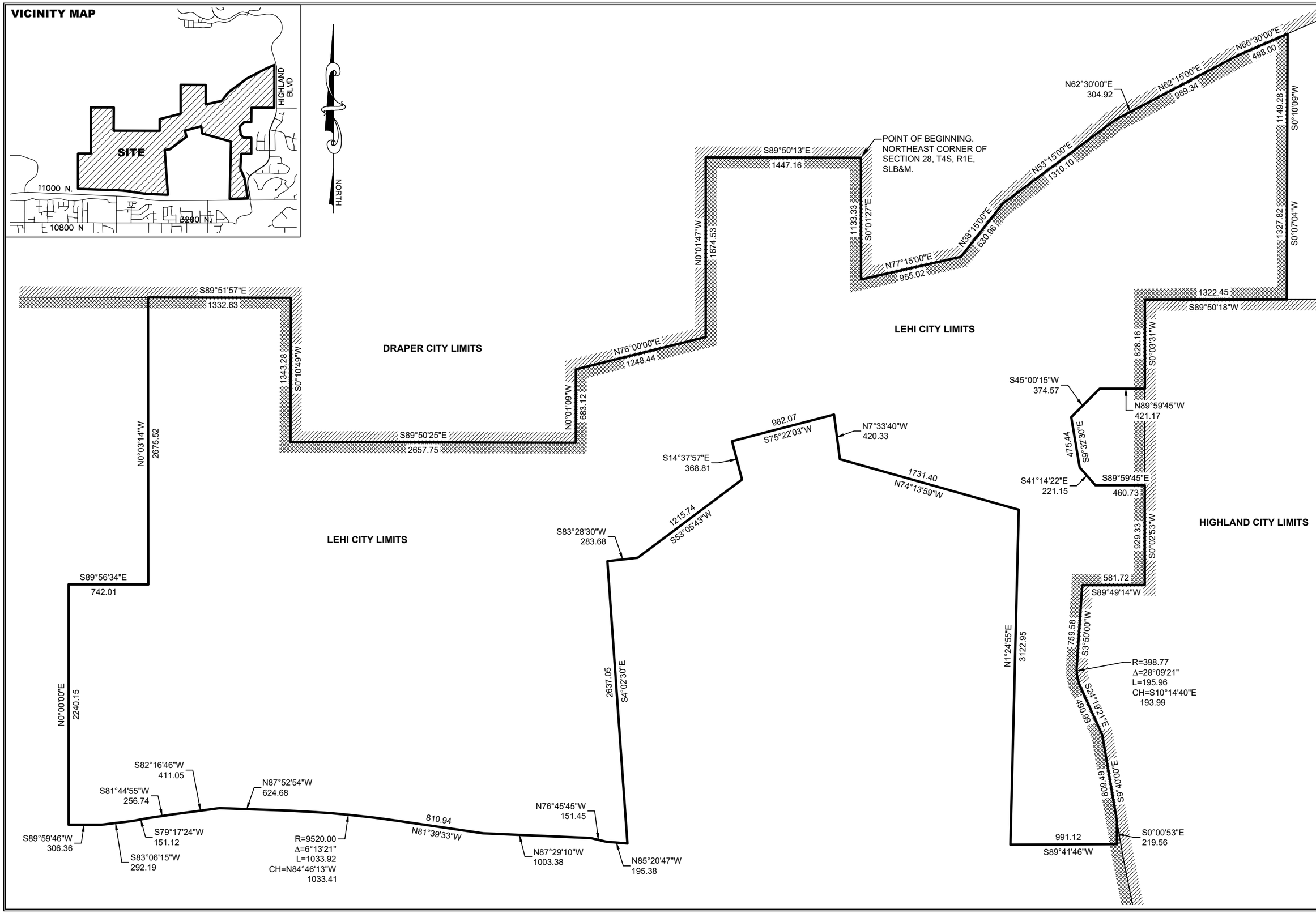
1,215.74 feet; thence S83°28’30”W 283.68 feet; thence S4°02’30”E 2,637.05 feet to a point on the northerly line of the SR 92 right-of-way line; thence along said northerly line the following eleven (11) courses: N85°20’47”W 195.38 feet; thence N76°45’45”W 151.45 feet; thence N87°29’10”W 1,003.38 feet; thence N81°39’33”W 810.94 feet; thence along the arc of a 9520.00 foot radius curve to the left 1,033.41 feet through a central angle of 6°13’21” (chord: N84°46’13”W 1,033.41 feet); thence N87°52’54”W 624.68 feet; thence S82°16’46”W 411.05 feet; thence S81°44’55”W 256.74 feet; thence S79°17’24”W 151.12 feet; thence S83°06’15”W 292.19 feet; thence S89°59’46”W 306.36 feet; thence North 2,240.15 feet; thence S89°56’34”E 742.01 feet; thence N0°03’14”W 2,675.52 feet to a common point between the corporate city limits of Draper and Lehi City; thence along said Draper and Lehi City line the following five (5) courses: S89°51’57”E 1,332.63 feet; thence S0°10’49”W 1,343.28 feet; thence S89°50’25”E 2,657.75 feet; thence N0°01’09”W 683.12 feet; thence N76°00’00”E 1,248.44 feet; thence N0°01’47”W 1,674.53 feet; thence S89°50’13”E 1,447.16 feet to the point of beginning.

Contains: 844.30± Acres

Sky Area Boundary Map



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SKYE AREA PLAN

LEHI, UTAH

BOUNDARY EXHIBIT

REVISIONS
1 -
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3 -
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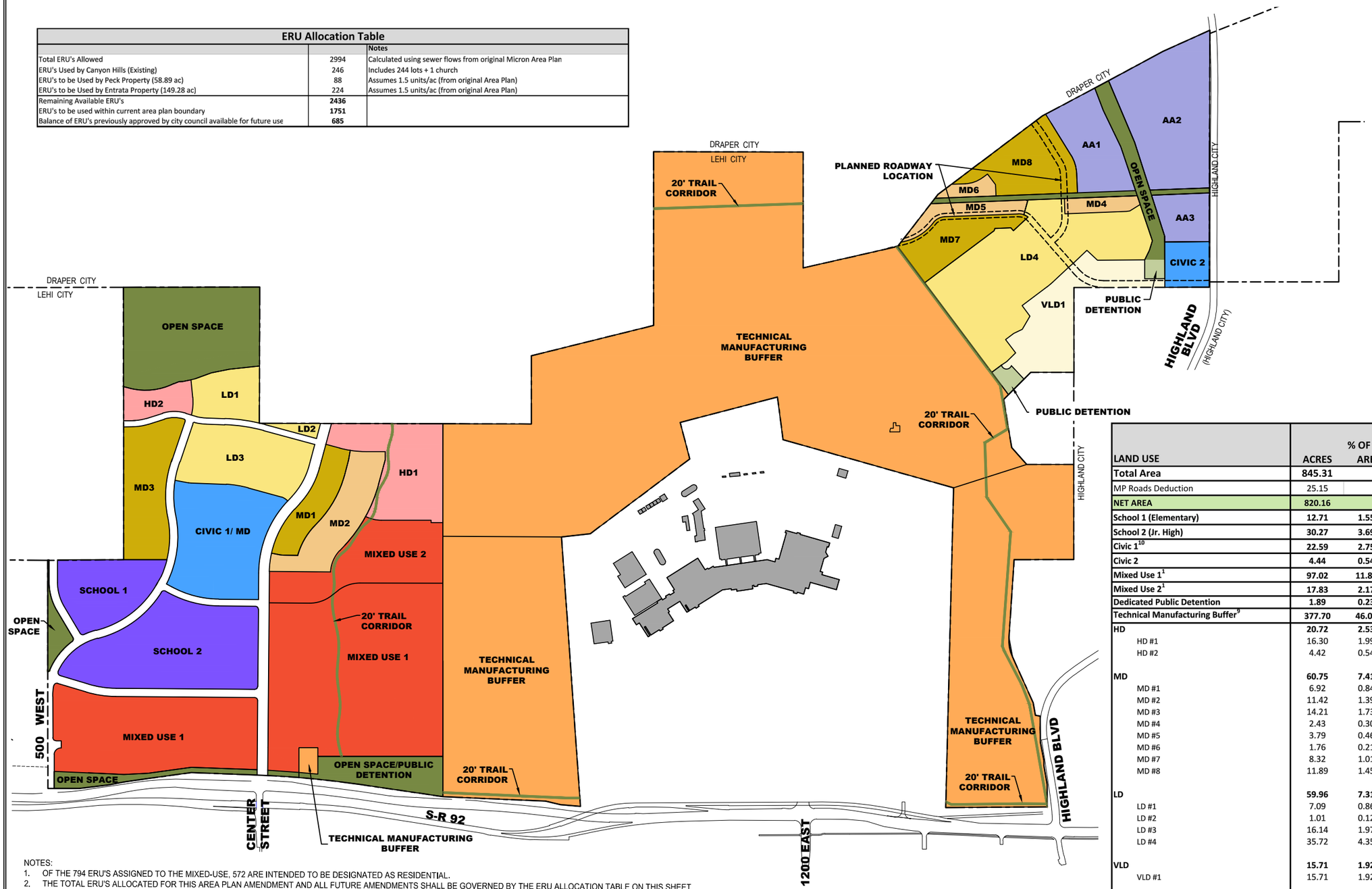
5 -

LEI PROJECT #: 2011-0066
DRAWN BY: RWH
DESIGNED BY: RWH
SCALE: 1" = 800'
DATE: 04/12/2022
SHEET 1

Section 2 – Land Use

- Land Use Maps & Tabulations
- Tables of Uses
- Bulk and Intensity Tables
- Development / Architectural Standards
- Fencing Standards
- Parking Requirements
- Buffers & Open Space
- Conceptual HOA / Private Amenities
- Plat and Site Plan Approval Processes

ERU Allocation Table		
		Notes
Total ERU's Allowed	2994	Calculated using sewer flows from original Micron Area Plan
ERU's Used by Canyon Hills (Existing)	246	Includes 244 lots + 1 church
ERU's to be Used by Peck Property (58.89 ac)	88	Assumes 1.5 units/ac (from original Area Plan)
ERU's to be Used by Entrata Property (149.28 ac)	224	Assumes 1.5 units/ac (from original Area Plan)
Remaining Available ERU's	**2436**	
ERU's to be used within current area plan boundary	**1751**	
Balance of ERU's previously approved by city council available for future use	**685**	



LAND USE	ACRES	% OF NET AREA	PROPOSED DENSITY Low Range (units/acre)	PROPOSED DENSITY High Range (units/acre)	PROPOSED ERU'S Low Range (Units)	PROPOSED ERU'S High Range (Units)
Total Area	**845.31**					
MP Roads Deduction	25.15					
NET AREA	**820.16**					
School 1 (Elementary)	**12.71**	**1.55%**			9	
School 2 (Jr. High)	**30.27**	**3.69%**			15	
Civic 1[10]	**22.59**	**2.75%**			27	
Civic 2	**4.44**	**0.54%**			2	
Mixed Use 1[1]	**97.02**	**11.83%**	4	30	460	
Mixed Use 2[1]	**17.83**	**2.17%**	4	30	334	
Dedicated Public Detention	**1.89**	**0.23%**				
Technical Manufacturing Buffer[9]	**377.70**	**46.05%**			0	
HD	**20.72**	**2.53%**				
HD #1	16.30	1.99%	8	12	130	196
HD #2	4.42	0.54%	8	12	35	53
MD	**60.75**	**7.41%**				
MD #1	6.92	0.84%	3	7	21	48
MD #2	11.42	1.39%	3	7	34	80
MD #3	14.21	1.73%	3	7	43	99
MD #4	2.43	0.30%	3	7	7	17
MD #5	3.79	0.46%	3	7	11	27
MD #6	1.76	0.21%	3	7	5	12
MD #7	8.32	1.01%	3	7	25	58
MD #8	11.89	1.45%	3	7	36	83
LD	**59.96**	**7.31%**				
LD #1	7.09	0.86%	1	4	7	28
LD #2	1.01	0.12%	1	4	1	4
LD #3	16.14	1.97%	1	4	16	65
LD #4	35.72	4.35%	1	4	36	143
VLD	**15.71**	**1.92%**				
VLD #1	15.71	1.92%	1	2	16	31
Active Adult	**41.03**	**5.00%**				
AA #1	11.10	1.35%	4	6	44	67
AA #2	24.62	3.00%	4	6	98	148
AA #3	5.31	0.65%	4	6	21	32
TOTAL OPEN SPACE AREA[4,5]	**92.00**	**11.87%**				
Dedicated Public Open Space[3]	57.50					
Private Open Space	36.31					
Power Corridor Deduction	-1.81					
NON-RESIDENTIAL ERU'S	**275**					
RESIDENTIAL ERU'S	**1,476**					
TOTAL ERU'S[2]	**1,751**					

NOTES:

1. OF THE 794 ERU'S ASSIGNED TO THE MIXED-USE, 572 ARE INTENDED TO BE DESIGNATED AS RESIDENTIAL.
2. THE TOTAL ERU'S ALLOCATED FOR THIS AREA PLAN AMENDMENT AND ALL FUTURE AMENDMENTS SHALL BE GOVERNED BY THE ERU ALLOCATION TABLE ON THIS SHEET.
3. THE 20' TRAIL SHOWN WITHIN THE TECHNICAL MANUFACTURING BUFFER AREA IS INCLUDED AS PUBLIC OPEN SPACE IN THE TABULATION TABLE.
4. THIS MAP ONLY SHOWS PUBLIC OPEN SPACE & DETENTION THAT IS PLANNED FOR THE PROJECT. ADDITIONALLY, PRIVATE OPEN SPACE WILL BE PROVIDED UNIFORMLY THROUGHOUT THE AREA PLAN TO EQUAL AT LEAST THE CITY COUNCIL APPROVED AMOUNT OF 92 ACRES. REFER TO THE BUFFERS & OPEN SPACE SECTION FOR MORE INFORMATION.
5. TOTAL OPEN SPACE WILL MAKE UP APPROXIMATELY 11.87% OF THE GROSS AREA, LESS THE CIVIC AND SCHOOL AREAS.
6. PRIOR TO ANY DEVELOPMENT TAKING PLACE EAST OF THE TECHNICAL MANUFACTURING BUFFER, AN AGREEMENT MUST BE IN PLACE BETWEEN LEHI CITY AND TSSD TO PROVIDE SEWER SERVICE.
7. THE NEARBY SEASONS CULINARY WATER TANK HAS CAPACITY AVAILABLE FOR 467 ERU'S FROM THE SKYE AREA PLAN. ANY ADDITIONAL ERU'S WILL NEED A NEW CULINARY WATER TANK CONSTRUCTED BEFORE BUILDING PERMITS ARE ISSUED.
8. THE NEARBY SEASONS PRESSURIZED IRRIGATION (PI) RESERVOIR HAS CAPACITY AVAILABLE TO IRRIGATE 51.59 ACRES OF IRRIGABLE LANDSCAPING WITHIN THE SKYE AREA PLAN. ANY ADDITIONAL IRRIGABLE LANDSCAPED AREAS WILL NEED A NEW PI STORAGE TANK/RESERVOIR CONSTRUCTED BEFORE BUILDING PERMITS ARE ISSUED.
9. NEITHER THE CULINARY NOR THE PI SYSTEMS FOR SKYE HAVE A WATER SOURCE IDENTIFIED. A SOURCE WILL NEED TO BE DETERMINED AND APPROVED BY CITY STAFF PRIOR TO THE APPROVAL OF ANY BUILDING PERMITS.
10. TECHNICAL MANUFACTURING BUFFER SHALL HAVE NO ERU'S ASSOCIATED WITH IT. ANY ADDITIONAL DEVELOPMENT ON THIS AREA SHALL REQUIRE ADDITIONAL UTILITY STUDIES AND CITY STAFF APPROVAL.
11. IF THE PROPOSED CIVIC 1 SITE IS NOT USED AS A CIVIC/CHURCH SITE, IT WILL BECOME AN MD POD WITH A DENSITY RANGE OF 3-7 UNITS/ACRE. DENSITY WILL BE TRANSFERRED FROM OTHER PODS AS NECESSARY, KEEPING THE TOTAL ERU CAP AT 1751.

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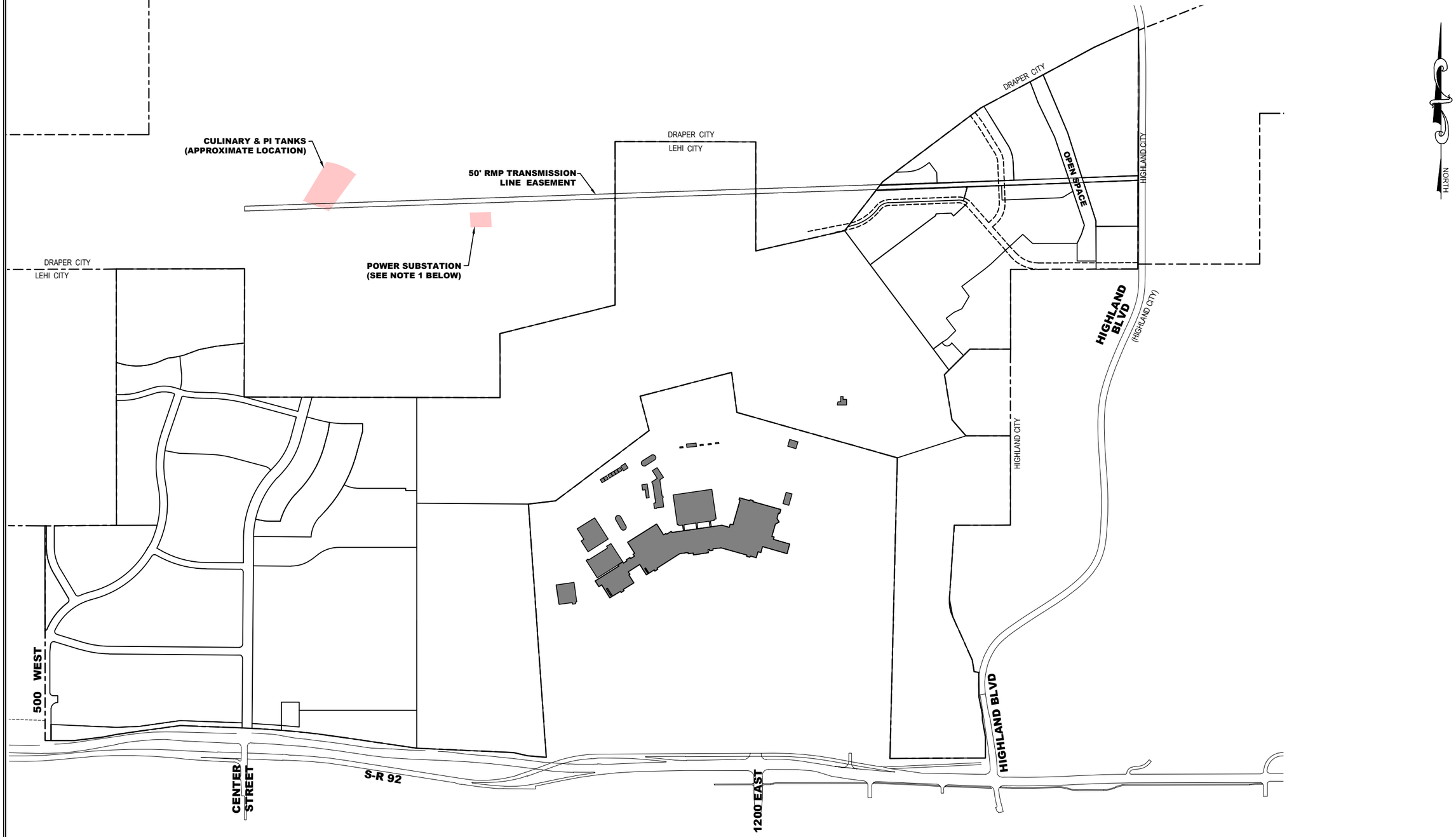
SKYE
LEHI, UTAH

LAND USE PLAN

REVISIONS
1 -
2 -
3 -
4 -
5 -

LEI PROJECT #: 20-0067
DRAWN BY: RWH
DESIGNED BY: BCT
SCALE: 1" = 1000'
DATE: 7/15/2022
SHEET
L-1



NOTES:

1. POWER SUBSTATION LOCATION IS UNKNOWN AT THIS TIME. SUBSTATION TO BE LOCATED NO MORE THAN 1000' AWAY FROM THE EXISTING ROCKY MOUNTAIN POWER TRANSMISSION LINE AS SHOWN.
2. THE LOCATIONS OF THE CULINARY AND PI TANKS AS SHOWN HERE ARE APPROXIMATE IN NATURE. ACTUAL LOCATIONS SHALL BE DETERMINED AT FINAL D SIGN.

LEGEND

	PUBLIC FACILITIES

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SKYE
LEHI, UTAH

PUBLIC FACILITIES PLAN

REVISIONS
1 -
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LEI PROJECT #: 20-0067
DRAWN BY: RWH
DESIGNED BY: BCT
SCALE: 1" = 1000'
DATE: 02/07/2022
SHEET
L-2

Skye Area Plan

Table of Uses - Mixed Use / Commercial Districts

RESIDENTIAL USES		
LAND AREA DESIGNATION	**MU**	**TMB**
Dwelling Unit for caretaker/security guard (Only to be used by caretaker and immediate family)	P	N
Group Home	P	N
Juvenile Group Facility	N	N
Mixed-use single family residential and commercial structure/project complying with the use and development standards	P	N
Horizontal Mixed-use commercial and Stacked Residential Above Commercial	P	N
Townhouses/Condominiums	P	N
Multi-Family Dwellings (greater than four dwelling units)	P	N
Rehabilitation and Treatment Facilities [See Sec. 12.180]	C	N
Nursing Home, Assisted Living, or Retirement Home/Center	P	N
PUBLIC/CIVIC USES		
LAND AREA DESIGNATION	**MU**	**TMB**
Churches (places of worship)	P	N
Cultural and Artistic uses, such as Museums, Galleries, Libraries, Performing Arts Studios	P	N
Golf Courses, Country Clubs, and Putting Greens	C	N
Parks, Playgrounds, Open Space, Trails and Greenways	P	P
Parking lot or Parking Structure, Municipal or Joint Venture (public/private)	P	P
Public/Civic Buildings	P	N
Schools	P	N
Sporting Facilities, Arenas	P	N
Sports Fields	P	P
COMMUNICATION & UTILITIES		
LAND AREA DESIGNATION	**MU**	**TMB**
Communication Facilities and Towers [See Sec.12.140]	C	P
Electrical Substations and Power Transmission Lines, Municipal	P	P
Electrical Substations and Power Transmission Lines, ground and roof-mounted solar energy facilities Non-Municipal	C	P
Oil & Gas Transmission Lines	C	P
Public Facilities including but not limited to water tanks, irrigation ponds, pump stations, well houses and lift stations.	P	P
Public and Private (with franchise agreement) Utility Underground Lines, and Rights of Way	P	P
Public and Private (with franchise agreement) Utility Buildings and Other Above Ground, Structures	C	P
COMMERCIAL/NONRESIDENTIAL USES		
LAND AREA DESIGNATION	**MU**	**TMB**
Accessory Buildings and uses incidental to an authorized use	P	P
Adult Daycare	P	N
Artisan Shop	P	N
Athletic Instruction, including Dance, Gymnastics, and Martial Arts	P	N
Automobile Sales/Rental sites 1 acre or larger	N	N
Automobile Service and Repair	P	N
Bakery, Retail	P	N
Bed and Breakfast	P	N
Body Art Facility	P	N

Notes:

P= Use allowed as a permitted use.
C= Use allowed as a Conditional Use.
N= Use not allowed and is prohibited.

Any land uses within the TMB zone shall be related to the necessary operation of the adjacent Technical Manufacturing use and shall be incidental and subordinate to that primary use (Texas Instruments). In addition, any additional uses will not exceed the existing capacities currently granted to Texas Instruments.

Skye Area Plan

Table of Uses - Mixed Use / Commercial Districts

LAND AREA DESIGNATION	MU	TMB
Brew Pub	P	N
Building Maintenance Services	P	P
Car Wash	P	N
Check Cashing, Title Loans & other Credit Services	P	N
Child Daycare (Commercial)	P	N
Climate Controlled Indoor Storage	P	N
Commercial Laundries, Linen Service	P	N
Commercial Parking Lot/Structure (private)	P	P
Commercial Recreational Facility	P	N
Conference Center, Convention Center, Reception Center	P	N
Construction and Equipment Sales and/or Rental (No outdoor storage)	P	N
Construction Service (No outdoor storage)	C	N
Convenience Store, with Gasoline Sales	P	N
Dog Care Facility	C	N
Dry Cleaners	P	N
Equipment Sales and Rental (No outdoor storage)	P	N
Financial Institutions and Services	P	N
Drive through facilities incidental to an allowed use	P	N
Funeral Home	C	N
Health Care Facility	P	N
Health/Fitness Club	P	N
Heliport	C	N
Hobby Garages	P	N
Hotels and Motels	P	N
Junk Yards and Salvage Yards	N	N
Laboratory - Medical, Dental, Optical	P	N
Launderette, Laundromat	P	N
Light Office/Warehouse Combination	P	N
Makerspace (flex space that is divided into separate units that can be used for a variety of purposes including storage, small business, retail, recreational use and non-permanante residential use.)	P	N
Manufactured Home Sales and Service	N	N
Medical and Dental Clinics	P	N
Medical Cannabis Pharmacy	P	N
Medical Research Facility	P	N
Moving and Storage Facilities	C	C
Nightclub	C	N
Offices, Professional	P	N
Office/Warehouse with no outside storage	P	P
Outdoor Sales and Display	P	N
Outdoor Storage of Materials, Products and Equipment incidental to an allowed use (excluding junk yards and salvage yards)	N	P
Pawn Shops (see Sec. 12.130 F)	N	N
Personal Services	P	N

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Skye Area Plan

Table of Uses - Mixed Use / Commercial Districts

LAND AREA DESIGNATION	MU	TMB
Personal Services including a Body Art Facility (See Definitions Chapter 39)	C	N
Pet Grooming Facility	P	N
Plant Nursery with Outside Display	P	N
Portable Storage Container	N	P
Public Dance Hall	C	N
Race Tracks for Go-Carts, ATV and Motocross or other Motorized Sports Recreational Facilities (includes private or commercial)	C	N
Research and Development Facilities	P	N
Restaurant	P	N
Retail Facilities and Services accessory to a principal use	P	N
Retail Facilities and Services with drive-up window(s)	P	N
Retail Sales, General	P	N
Schools - Vocational and Technical	P	N
Storage Units [See Sec.12.130-A]	C	C
Indoor Storage, Vehicles [See Sec.12.130-A]	C	P
Temporary Construction Buildings & Yards (12 months maximum)	P	P
Theater	P	N
Tobacco Products Shop	N	N
Towing and Impound Yard [See Sec. 12.130-G]	N	N
Veterinary Office, operating entirely within an enclosed building and keeping animals overnight only for treatment purposes	P	N
MANUFACTURING	**MU**	**TMB**
Brick Manufacture	N	N
Indoor Building Materials Storage and Wholesaling	P	P
Cabinet and Woodworking Shop	P	N
Cannabis Production	N	N
Commercial Storage or Distribution (excluding junkyards and salvage yards)	P	P
Concrete Block Manufacture	N	N
Concrete Manufacture	N	N
Indoor Contractor's Storage Yard	P	P
Food Processing including the slaughtering, processing and packaging of livestock (excluding feed lots, outdoor corrals or pens for the keeping of livestock, and animal rendering)	N	N
Gasoline and Oil Storage (wholesale, or Private)	N	P
Indoor Heavy Industrial Assembly	C	C
Light Manufacturing and Assembly which are not obnoxious or offensive by reason of emission of odor, dust, smoke, noxious gases, noise, vibration, glare, heat or other impacts, nor hazardous by way of materials, process, product, or waste, and which: a. Do not process animal, vegetable or fish products or the rendering and refining of fats and oils; b. Encloses all equipment, compressors, generators and other ancillary equipment within a building or structure.	P	N
Lumberyard	N	N
Manufacture, Processing or Packaging of food and beverage products, personal hygiene products and cosmetics, drugs and pharmaceuticals and which are not obnoxious or offensive by reason of emission of odor, dust, smoke, noxious gases, noise, vibration, glare, heat or other impacts, nor hazardous by way of materials, process, product, or waste and where all activities are conducted within a completely enclosed building and where all equipment, compressors, and other ancillary equipment is enclosed	C	N
Printing and Publishing Facilities	P	N

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Skye Area Plan

Table of Uses - Mixed Use / Commercial Districts

Recycling Center	N	N
Rock, Sand and Gravel Storage and Distribution (private)	N	P
Rock, Sand, Gravel and Topsoil Commercial Screening and Sales	N	N
Tradesmen Shops with no outside storage	P	N
Truck and Large Equipment Sales and Rental	N	N
Truck and Large Equipment Repair	N	N
Truck Freight Terminal	N	N
Warehousing and Wholesale Distribution with no outside storage	P	P
Warehousing and Wholesale Distribution with outside storage	N	N
Indoor Welding Shop with no outside storage	C	C
RESOURCE PRODUCTION	**MU**	**TMB**
Agriculture (Horticulture)	P	P

Notes:

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Any land uses within the TMB zone shall be related to the necessary operation of the adjacent Technical Manufacturing use and shall be incidental and subordinate to that primary use (Texas Instruments). In addition, any additional uses will not exceed the existing capacities currently granted to Texas Instruments.

Skye Area Plan

Table of Uses - Residential Districts

RESIDENTIAL DWELLING TYPES							
LAND AREA DESIGNATION	**HD**	**MD**	**LD**	**VLD**	**AA**	**CIVIC 1**	**SCHOOL**
Single-Family Dwelling	P	P	P	P	P	P	N
Two-Family Dwelling [See Sec. 12.130]	P	P	N	N	P	P	N
Three-Family Dwelling [See Sec. 12.130]	P	P	N	N	P	P	N
Four-Family Dwelling [See Sec. 12.130]	P	P	N	N	P	P	N
Accessory Dwelling Unit (see Sec. 26.030)	N	N	N	N	N	N	N
Group Homes	P	P	P	P	P	P	N
Modular Home	N	N	N	N	N	N	N
Multi-Family Dwellings [>4 dwelling units; See Sec. 12.130]	P	P	N	N	P	P	N
Townhouses/Condominiums [See Sec.37.040]	P	P	N	N	P	P	N
PUBLIC/CIVIC USES							
LAND AREA DESIGNATION	**HD**	**MD**	**LD**	**VLD**	**AA**	**CIVIC 1**	**SCHOOL**
Churches (places of worship)	P	P	P	P	P	P	P
Golf Courses & Country Clubs	P	P	P	P	P	N	N
Parks, Playgrounds, Open Space, Trails and Greenways	P	P	P	P	P	P	P
Public/Civic Buildings	P	P	P	P	P	P	P
Schools	P	P	P	P	P	P	P
Sporting Facilities, Arenas-Municipal	C	C	C	C	C	C	C
Sporting Facilities, Arenas-Non-Municipal	C	C	C	C	C	C	C
Sports Fields	P	P	P	P	P	P	P
UTILITIES							
LAND AREA DESIGNATION	**HD**	**MD**	**LD**	**VLD**	**AA**	**CIVIC 1**	**SCHOOL**
Elect. Substations, Power Transmit Lines-Municipal	P	P	P	P	P	P	P
Elect. Substations, Power Transmit Lines-Non-Municipal	C	C	C	C	C	C	C

Notes:

P= Use allowed as a permitted use

C. = Use allowed as a Conditional Use.

N= Use not allowed and is prohibited.

Skye Area Plan
Table of Uses - Residential Districts

Ground-Mounted Solar Energy System (must follow Lehi City Code - see 19.020)	C	C	C	C	C	C	C
Hybrid Wind and Solar Energy Facility	C	C	C	C	C	C	C
Oil & Gas Transmission Lines	C	C	C	C	C	C	C
Public and Private (with franchise agreement) Utility Underground Lines, and Rights of Way	P	P	P	P	P	P	P
Public and Private (with franchise agreement) Utility Buildings and Other Above Ground, Structures	C	C	C	C	C	C	C
Roof-Mounted Solar Energy System	P	P	P	P	P	P	P
Roof-Mounted Wind Energy System	C	C	C	C	C	C	C
Small Wind Energy Facility	C	C	C	C	C	C	C
OTHER USES							
LAND AREA DESIGNATION	**HD**	**MD**	**LD**	**VLD**	**AA**	**CIVIC 1**	**SCHOOL**
Adult Day Care	C	C	C	C	C	C	C
Agriculture (Horticulture)	P	P	P	P	P	P	P
Animal Rights - Category 1 [See Sec.12-120(D)]	P	P	P	P	P	N	N
Animal Rights - Category 2 [See Sec.12-120(D)]	P	P	P	P	P	N	N
Animal Rights - Category 3 [See Sec.12-120(D)]	P	P	P	P	P	N	N
Animal Rights - Category 4 [See Sec.12-120(D)]	P	P	P	P	P	N	N
Assisted Living Facility	C	C	C	C	C	C	C
Bed and Breakfast	N	N	N	N	N	N	N
Beekeeping [See Sec. 12-120(E)]	C	C	C	C	C	C	C
Cannabis Production Establishment	C	C	C	C	C	C	C
Café	C	C	C	C	C	C	C
Child Daycare (commercial)	C	C	C	C	C	N	C
Commercial Equestrian Riding Facilities	N	N	N	N	N	N	N
Dance Studio	C	C	C	C	C	C	C
Gravel Pits, Clay Pits	N	N	N	N	N	N	N

Notes:
P= Use allowed as a permitted use.
C= Use allowed as a Conditional Use.
N= Use not allowed and is prohibited.

Skye Area Plan

Table of Uses - Residential Districts

LAND AREA DESIGNATION	HD	MD	LD	VLD	AA	CIVIC 1	SCHOOL
Greenhouses (private, as an accessory use)	C	C	P	P	C	C	P
Greenhouses (commercial)	N	N	N	N	N	N	N
Medical/Dental Clinic	C	C	C	C	C	C	C
Model Home [See Sec.12.220]	P	P	P	P	P	P	P
Portable Storage Container [See Sec. 12.130-D]	C	C	C	C	C	C	C
Rest Home, Nursing Home	C	C	C	C	C	C	C
Retail Shop	C	C	C	C	C	C	C
Retirement Home/Retirement Center	C	C	C	C	C	C	C
Rock Crushers	N	N	N	N	N	N	N
Short Term Rental	P	P	P	P	P	P	N
Swimming Pools (private)/Private Recreation Facilities	P	P	P	P	P	P	P
Temporary Construction Buildings & Yards (12 months maximum)	P	P	P	P	P	P	P
Temporary Home Sales Office (12 months maximum)	P	P	P	P	P	P	P

Notes:

P= Use allowed as a permitted use.

C= Use allowed as a Conditional Use.

N= Use not allowed and is prohibited.

Skye Area Plan

Table of Bulk and Intensity Requirements
Mixed Use / Nonresidential Districts

	Mixed Use	Tech. Manufacturing Buffer (TMB)
Minimum Lot Area	N/A	N/A
Maximum Dwelling Units Per Acre	30 units per acre (still limited by the overall density allotment of the Mixed-Use designation).	N/A
Minimum Lot Width/Frontage	N/A	N/A
Minimum Front Yard And Corner Yard	No minimum requirement but must comply with the IBC.	No minimum requirement but must comply with the IBC.
Minimum Rear Yard	No minimum requirement but must comply with the IBC.	No minimum requirement but must comply with the IBC.
Minimum Rear Yard (Corner Lots)	No minimum requirement but must comply with the IBC.	No minimum requirement but must comply with the IBC.
Minimum Side Yard	No minimum requirement but must comply with the IBC.	No minimum requirement but must comply with the IBC.
Minimum Side Yard (Corner Lot)	No minimum requirement but must comply with the IBC.	No minimum requirement but must comply with the IBC.
Maximum Height of Occupied Structures	No maximum restriction but must comply with the IBC.	No maximum restriction but must comply with the IBC.
Maximum Height Of Unoccupied Structure	No maximum restriction but must comply with the IBC.	No maximum restriction but must comply with the IBC.
Minimum Ground Floor Area Per Residential Unit	N/A	N/A
Minimum Living Area Per Residential Unit Where Allowed Above Commercial	N/A	N/A
Minimum Landscape Requirement	10%	N/A
Minimum Open Space / Native Area Requirement	N/A	80%

Skye Area Plan

Table of Bulk and Intensity Requirements

Residential Districts

	DISTRICT						
	VLD	**LD**	**MD**	**HD**	**Active Adult**	**Civic**	**Schools**
Minimum Lot Area	Single-Family Dwelling 15,000 Sq. Ft. Other allowed uses 15,000 Sq. Ft.	Single-Family Dwelling 6,000 Sq. Ft.	Single-Family, Attached, Clustered or Stacked Units with density controlling # of units.	No minimum lot size, density controls the number of units.	Single-Family, Attached, Clustered or Stacked Units with density controlling # of units.	N/A***	N/A
Maximum Dwelling Units Per Acre	2	4	7	12	6	N/A	N/A.
Minimum Lot Width/Frontage	Residential Uses 80 Ft (Irregular Lots Min. 50ft. measured at the setback line)	Residential Uses 60 Ft (Irregular Lots Min. 40ft. measured at the setback line)	Single-Family Residential Uses 40 Ft (Irregular Lots Min. 30ft. measured at the setback line) Other Residential Uses N/A	No minimum as allowed by IBC	No minimum as allowed by IBC	60 Ft unless otherwise approved by DRC, PC and CC***	60 Ft unless otherwise approved by DRC, PC and CC
Minimum Front Yard	20 Ft.	15 Ft. minim structure, 20 Ft. minimum to the garage providing for an 20 Ft. minimum driveway.	15 Ft. minimum to structure, 20 Ft. minimum to the garage allowing for an 20 Ft. minimum driveway.	5 Ft.	5 Ft.	No minimum as allowed by IBC.	No minimum as allowed by IBC.
Minimum Rear Yard (Interior Lots)	20 Ft.	20 Ft.	10 Ft.	5 Ft.	5 Ft.	No minimum as allowed by IBC.	No minimum as allowed by IBC.

to

Skye Area Plan

Table of Bulk and Intensity Requirements

Residential Districts

	VLD	LD	MD	HD	Active Adult	Civic	Schools
Minimum Rear Yard (Corner Lots)	20 Ft.	20 Ft.	10 Ft.	5 Ft.	5 Ft.	No minimum as allowed by IBC.	No minimum as allowed by IBC.
Minimum Rear Yard for Rear-Loaded Driveways	N/A	N/A	4 Ft. (Driveways should be either 5 ft. or less or, 20 Ft. or more to make it clear where parking is allowed.)	4 Ft. (Driveways should be either 5 ft. or less or, 20 Ft. or more to make it clear where parking is allowed.)	4 Ft. (Driveways should be either 5 ft. or less or, 20 Ft. or more to make it clear where parking is allowed.)	N/A	N/A
Minimum Side Yard	Residential Uses 10 Ft.	Residential Uses 10 Ft.	Residential Uses 5 Ft.	Residential Uses 5 Ft. (0 Ft. if Attached)	Residential Uses 5 Ft. (0 Ft. if Attached)	As allowed by IBC and must recognize any easements and comply with Chapter 12-080.	As allowed by IBC and must recognize any easements and comply with Chapter 12-080.
Minimum Side Yard (Corner Lot)	20 Ft.	20 Ft.	15 Ft.	10 Ft.	10 Ft.	As allowed by IBC and must recognize any easements and comply with Chapter 12-080.	As allowed by IBC and must recognize any easements and comply with Chapter 12-080.
Height	Max 3 Stories	Max 3 Stories	Max 3 Stories	Max 4 Stories	Max 3 Stories	As allowed by IBC.	Max 3 Stories
Minimum Ground Floor Area Per Residential Unit	1,500 Sq. Ft. for 1 story, 1,000 for multiple stories	1,300 Sq. Ft. for 1 story, 800 for multiple stories	800 Sq. Ft. for 1 story, 500 for multiple stories	700 Sq. Ft. for 1 story, 300 for multiple stories	700 Sq. Ft. for 1 story, 300 for multiple stories	N/A***	N/A

Notes:
***** If this area is not used as a Civic/Religious site, the area may be used as a MD residential district.**

SKYE AREA PLAN

RESIDENTIAL ARCHITECTURAL DESIGN GUIDELINES & STANDARDS

PREPARED BY:
P3-PLANNING & DESIGN SERVICES
2022

ARCHITECTURAL DESIGN GUIDELINES AND STANDARDS
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1 Introduction to the Skye Area Plan

1.1 BACKGROUND

Our goal is to create a master-planned, resort style residential community with some high-quality office, professional, retail, and other mixed-use commercial areas. The entire area will be well-connected by trails, walkways and open space corridors that will allow access to both commercial and professional areas as well as to the foothills and other native areas. The residential development area will be a well- planned cohesive community with a variety of home products and price points.

1.2 PURPOSE

The Skye Area Plan Design Guidelines (the "Guidelines") have been created to provide a range of unique but complimentary architectural styles that together contribute to a unified community design. The Guidelines explain the architectural aesthetics, allowed styles and site considerations that are to guide the design and construction of all new single-family homes and townhomes, and home additions and future remodels within the Skye Area Plan, and in full compliance with the general standards and requirements of Lehi City. Illustrations and photos are included throughout the Guidelines to help convey the thoughts and concepts described in the document's text. These images are intended to express general design concepts and are not meant to impose specific plans or design solutions.

***These Guidelines are meant to serve as a replacement for Section 37.020 Multi-Family Residential Design Standards specifically for Single-Family and for Townhomes (not including apartments or condos) with the exception of the site design standards (Section 37.020 C) which remains the standard for the Skye Area Plan. Section 37.020 C.1 is also modified due to the steep topography of the Skye Area Plan as follows: The minimum requirement of 50% of the total townhomes that are required to be rear loaded is modified to be 20%.

The architectural styles and characteristics found herein in the Guidelines shall be incorporated into all single-family and townhome design submittals in the Skye Area Plan. To this end, DR Horton will establish an Architectural Review Committee (ARC) to ensure that the design standards herein are adhered to and enforced. This ARC will replace city staff review of elevations. The ARC will be made up of a 3-member panel of DRH employees (or consultants). Upon completion of the development the HOA will review home modifications and landscape plans for existing residences according to the Codes Covenants and Restrictions (CC&Rs).

Please note that all other chapters and sections of the Lehi City Code, as well as Building Code standards, still apply and shall be followed unless specifically modified in this document. This includes all provisions of building review, landscape plans, setbacks, drainage, fire code, etc.

1.3 HOW TO UNDERSTAND THE DESIGN GUIDELINES

The Guidelines are organized into the following chapters and Appendices:

Introduction – Chapter 1 describes the goals and objectives for design within the community. A brief description of the allowed architectural styles (Craftsman, Prairie, Farmhouse, Modern, Transitional) for both single family homes and attached townhomes is also provided.

Community Vision & Character – Chapter 2 describes the overall vision for the Skye Area Plan and the design approach envisioned.

Architectural Design Guidelines – Chapter 3 provides Guidelines and standards for construction, remodeling, renovation, and/or alteration of any building improvements for single family homes and townhomes. This section includes standards on building massing, height, color, and exterior finish design for each of the allowed architectural styles. A description of appropriate architectural influences is included in the chapter.

Architectural Styles – Chapter 4 consists of an in-depth description of each of the architectural styles allowed at S e Area Plan, including the defining characteristics and exterior materials and colors typical of them. The styles, when utilized throughout the community, will create a complimentary palette of homes that will present a fresh, unified approach.

Appendices – The appendices include current and future additions of style designs and details to further assist owners and builders with understanding and implementing the S e Area Plan vision.

2.0 Community Vision & Character

2.1 THE SKYE AREA PLAN VISION

The vision of the Skye Area Plan is to create a high quality, diverse community with a variety of established architectural styles to provide a fresh and unique blend of designs. This will in turn create a place that is visually appealing and unique in the area while offering residents a variety of complimentary home styles and types to choose from. The Skye Area Plan offers the opportunity to combine an amazing mountain foothill site with quality architecture and planning. The following principles are at the core of the design philosophy as part of the Skye Area Plan:

- Quality architecture and design
- Mix of established architectural styles and types
- Emphasis on simplified design and flexibility with design elements to create unique sense of place
- Traditional neighborhood structure
- Focus on style and creativity over codified specific requirements

2.2 DESIGN APPROACH

Design in the Skye Area Plan draws inspiration from a variety of architectural traditions, which when combined form a visually cohesive, unified community design standard. A diversity of complimentary home types and styles are combined to provide an appealing aesthetic and interesting vernacular architecture.

Five established architectural types are permitted as part of the Skye Area Plan, each with its own set of recognized design elements and criteria. This will result in each street having its own unique mix of homes with its own architectural look and feel within the community, while also forming a cohesive architectural statement. The Guidelines are intended to offer some flexibility in interpretation of the architectural style options to allow for various design approaches.

The overall design aesthetic at the Skye Area Plan is a fresh and updated expression and interpretation of timeless architectural design and traditional neighborhood architecture.

2.3 KEY DEVELOPMENT & DESIGN PATTERNS

The Skye Area Plan incorporates a localized level of design and planning detail to ensure that each home is connected to the community fabric in a meaningful way. Homes and associated entries are oriented to the street, to parks or to open spaces whenever possible to invite outdoor living and foster relationships with neighbors. Front porches and courtyards are incorporated to invite outdoor living and conversation. The pedestrian experience and connection to area trails are important considerations to development and design.

All the architectural styles allowed under the Skye Area Plan offer design elements and features that foster this type of connection. These elements will be encouraged in all the traditional architectural styles as well as the more modern ones.

2.4 STYLE AND DETAILS

The architectural styles approved under the Skye Area Plan are listed in the following sections of these Guidelines. A strict and detailed interpretation of any individual style is not necessary, as long as the basic elements of design, massing and detailing are followed. Diversity of interpretation is encouraged to create an end result of a cohesive dynamic community that characterizes many interpretations of many styles.

Authentic architectural styles and details are encouraged under the Skye Area Plan. A diversity of styles, colors and materials is also encouraged, much as is seen in traditional towns and villages around the country.

3 Architectural Design Guidelines

3.1 PURPOSE

This section is intended to provide general design criteria and guidance for development of all single-family homes and townhomes at the Skye Plan Area, including how to interpret and utilize the five architectural design alternatives. The Guidelines are not meant to be overly restrictive, but to provide guidance in the design and implementation of a higher level of design quality and direction.

Although there are five (5) architectural design alternatives in the Skye Plan Area, the overall design approach is generally simple in form, regardless of the style. There are few overly complex roof structures, architectural features or excessive use of siding types or colors. New homes should be cohesive with existing homes in their simplicity, in order to maintain and enhance the look and feel of the neighborhood. Building form and massing should be authentic to the style and location, and sensitive with regard to scale.

Residential architecture within the Skye Area Plan should be centered on an authentic, integrated design approach. Residential design standards have been established that apply to all of the residential units without regard to their particular style. These standards, found in the following sections, carry across all architectural styles and help to foster the quality standard for which the project will be known.

3.2 OBJECTIVES

The Skye Area Plan design aesthetic is intended to be authentic and comprehensive, to create a unified mix of homes in the community. Single-family homes and townhomes will comprise a variety of one to two story dwellings, which should be integrated seamlessly into the neighborhood.

In general, the active living portions of the house or townhouse shall be pulled forward with articulated design elements so that they dominate and invigorate the street scene. Front entries and porches, terraces and main living areas shall be oriented to the street where possible.

A major objective is for the authentic styles of architecture to be emphasized that are compatible yet varied enough to create visual interest and diversity. An engaging and dynamic streetscape should be created through variation in architectural styles, floor plans, and elevation plotting.

Groupings or “pods” of same-style architecture are preferred when possible in order to create a more cohesive streetscape. However, no adjacent homes shall be the same floor plan or the same color scheme. Across the street, exact elevation groupings must be staggered by at least one (1) lot from the exact home elevation across the street.

Exterior color variation is encouraged across and within each architectural style, assuming the colors are appropriate to that particular style. Two homes carrying the same color scheme shall be separated by at least one home with different color schemes in order to provide variation along the street and to maintain individual distinction for each home. Each architectural style shall have five approved color schemes.

3.3 GENERAL BUILDING MASSING, FORM AND ORIENTATION

It is important that the massing of homes and townhomes in the Skye Area Plan be scaled in such a way that they relate to the relative size of the lots located there and harmonize with the area as much as possible.

The massing of homes and townhomes should be expressed simply and authentically in both mass and form. The building form, placement and architectural detailing greatly impact how a residential structure contributes to the perception of a quality, inviting neighborhood. Placement of homes should respect existing landforms and contour as much as possible with the existing slope and land massing.

The buildings must not become overpowering. Changing the planes of walls, changing direction, and providing some variety in the roof form provide diversity and visual interest. Massing should generally step down from a central roof form or massing element. Simple box massing shall be avoided. Long expanses of walls or roof ridgelines and large expanses of unbroken single or two-story facades are not permitted. Varying heights are encouraged.

3.4 MASSING FOR SINGLE-LEVEL AND TWO-STORY HOMES

As mentioned, varying heights of single and two-story homes should be utilized to create diversity and visual interest. Single story homes should utilize one or one and a half level massing depending on the architectural style to create a staggered height along the street. Elements such as shed roofs, dormers, roof gables and towers can provide such relief and emphasize a particular style at the same time. Façade breaks can also provide appropriate relief for single story massing.

With two-story homes, the form of the building should be seen as a series of interlocking masses rather than a multi-level box. Various design elements from each architectural style can provide such relief. Second story and higher massing shall be stepped down and recessed to improve the bulk of the massing and improve the street scene. Unbroken two-story façade faces shall be avoided on the front elevation of the home. The utilization of at least one of the following shall be incorporated to soften the massing or each home - porches and porch roofs, balconies, pop out features, dormers and/or other design elements.

3.5 FRONT FAÇADE/ENTRY SCALE, MASSING AND DESIGN

The front façade and entry elements are probably the most critical components of quality home design, as they provide the focal point to the home and help create the relationship with the street and surrounding properties. The entry should be human scaled and appropriate to the larger massing of the home as well as embrace the architectural style. Front entries should emphasize and reinforce the front porch and door area as single-story elements.

3.6 REAR/SIDE FAÇADE MASSING AND DESIGN

Rear and side elevations of homes and townhomes are visible from adjoining homes and streets and should be given ample attention and detailing in massing, design and detail. This is especially important with the exposed side elevation of homes on corner lots. Massing on sides and rear should be consistently proportioned with the rest of the home. Design elements of the selected architectural style shall be consistently applied whenever possible to create a cohesive design for the home. This style shall be expressed authentically around the perimeter, and materials and colors shall be consistently applied whenever possible. Corner-lot homes shall have the same material applications as the primary street façade for consistency across all streetscapes.

3.7 BUILDING HEIGHT

Building heights within the Skye Area Plan must comply with Lehi City Code and Building Code. In addition, the building height and expression should be consistent with the chosen architectural style of the home.

3.8 ROOF FORMS

The following roof types are permitted within the Skye Area Plan (depending on architectural style of home):

1. Partial hip roof
2. Gable roof
3. Full hip roof
4. Flat roof
5. Shed roof or Split shed roof

The following roof types are not permitted:

1. Conical roof
2. Mansard roof
3. Fake Mansard roof
4. Gambrel roof

Roof form and shape is important in terms of expressing the architectural style of the home and organizing the massing elements. The objective in determining roof shape is to enhance the style and establish a visual order to the home.

3.9 ROOF PITCH

Roof slopes at the Skye Plan Area should generally be between 2/12 and 8/12. Refer to each of the architectural styles for guidelines. Flat or shed roofs are appropriate on Modern style homes or as possible accent roof areas on other homes, depending on style.

3.10 ROOF SPAN

In general, long, unbroken roof spans are discouraged. Roof massing should enhance the style of the home. Roof variations on the front of the homes shall be permitted and suggested.

3.11 ROOF OVERHANGS

All of the approved architectural styles allow for roof overhangs. Roof overhangs protect walls and wall openings from rain and snow and contribute to a building's character.

Roof overhangs must be contained entirely within the property. The width of roof overhangs should be consistent with the architectural style of the single-family or multi-family home, and generally range between 6" and 24". Overhangs of up to 36" may be allowed if they are consistent with the architectural style of the home. (i.e. Prairie Style)

3.12 FASCIA WIDTH

Roof fascia, when utilized, must have a minimum width of 4" – 12". The incorporation of roof fascia must be consistent with the chosen architectural style of the home or townhome.

3.13 ROOF SURFACING MATERIALS

Roof surfacing materials are important as a means of articulating the architectural style of a home and of blending the new construction into the existing character of the area. Careful selection of these materials can help to relate the buildings to their surroundings.

From a functional standpoint, the choice of materials depends on the slope and assembly of the roof. The objective is to choose roof surfacing materials that help the building blend with its site and its climate conditions, and which are also functionally appropriate. All roofing surfacing materials should be non-reflective.

The following materials may be used as roof surfacing materials without coating or other finish:

- Asphalt
- Solar shingles
- Eco-shake
- Ceramic tiles (if appropriate to style)
- Architectural composition shingles
- Corten steel
- Copper
- Zinc
- “Green” roofs
- Steel
- Corrugated metal

Roof murals are not permitted. All roof flashing must be of a color harmonious with roof and/or upper wall surfacing. All types of barrel or “s” tiles, asphalt roll roofing, or reflective metal surfaces are prohibited.

3.14 ROOF APPURTENANCES

Roof appurtenances, such as dormers, clerestories, and skylights, can create interesting, pleasant interior spaces. Their location on the roof is critical to avoiding an over-decorated, visually confusing appearance.

Snow diverters and retainers may be necessary installations on roofs. They should be handled as an integral part of the roofscape. Rooftop access stairways, elevator shafts, vent shafts, mechanical equipment areas, antennae, etc., shall be confined within the roof and within roof dormers, and shall not protrude from the roof to form awkward-looking appurtenances. Cold roof ridge ventilators are permitted.

Skylights are allowed if they appear to be integral to roof structure; skylights may not be highly reflective and must be placed flush against the roof. They should not extend to the eave line. Bubble type sky lights or those that protrude from the roof are prohibited.

Chimney structures, if used, must be complimentary to and proportional with the massing, style and exterior materials of the home. Chimney caps should be in proper proportion with the chimney structure.

All pipe penetrations shall match the flashing or roofing.

3.15 MAIN ENTRY PORCHES AND FRONT DOORS

Main entries and front porches should be prominent and integrated into the architecture of the home as a primary focal point. Porches should be covered with support posts, columns and railings that match the design of the home. Wrap-around porches are encouraged on corner lots. If possible, porches should be deep and wide enough for the placement of chairs to create a gathering spot for conversing with neighbors. Porch width should be proportional to the width of the front of the home.

The front door and entry should be oriented to the street and front sidewalk whenever possible, but side entry front doors are also allowed. The door should be made of quality materials and be designed to complement the architectural design of the home.

3.16 GARAGES AND GARAGE DOORS

Garages should be set back if possible and secondary to the front entry area of the home. The visual impact of garage massing should be minimized from the front view as much as possible. Garage size and capacity should be proportional to the size of the lot and should not dominate the front elevation of the home.

Garage doors should be comprised of quality wood or metal, and should complement the design, exterior materials, and colors found on the home. The door should be appropriate to the architectural style of the home. Architecturally appropriate windows are encouraged to be incorporated in garage doors to provide natural light and visual interest.

3.17 WINDOWS

Windows should be appropriately scaled to the massing and architectural style of the home. They should be recessed when possible and encourage natural light and ventilation. Windows should be generally of the same style and pattern and not appear to be placed randomly.

Windows may be quality constructed of wood, wood clad with color-fast vinyl, aluminum, or fiberglass. Metal or metal-covered windows are permitted if coated with an approved finish. All-vinyl windows are also permitted.

Windows should generally be rectangular or square in shape. Angular windows that follow the slope of the roof are also allowed subject to the architectural style of the home. Circular, triangular, elliptical, round, and “fishbowl” windows are not permitted.

3.18 EXTERIOR MATERIALS

A critical component of articulated architectural design is the selection of appropriate exterior materials. The exterior materials of a home should be cohesive and highlight the architectural style. Design, textures, and materials should be visually appealing and complimentary. Corner-lot homes shall have the same material applications as the primary street façade for consistency across all streetscapes. This includes lots backing and facing major roads and open spaces.

Exterior siding elements should incorporate quality materials and a variety of complimentary colors and accents consistent with the architectural style of the home. Exterior material transitions should occur at inside corners or appropriate massing breaks rather than at outside corners. With the exception of corner lots, façade materials shall wrap a minimum of 2' on side elevations. Exterior columns and supports should appear to be visually proportional to the roof features they are supporting.

Acceptable exterior material wall finishes are shown in the sections below. Prohibited exterior materials include the following: plastic or vinyl siding, concrete block, plywood siding, aluminum siding, lava rock, asphalt siding, and slumpbloc weeping mortar.

3.19 PRIMARY WALL FINISHES

The exterior wall materials should convey a sense of scale and harmony with the selected architectural style.

Approved materials include:

- Wood siding or wood shingles
- Stone
- Stucco
- Brick, new or used
- Synthetic stone
- Corrugated steel
- Plate steel
- Concrete or composite siding
- Adobe

3.20 ACCENT/SECONDARY WALL MATERIALS

Secondary or accent materials can be used to enhance the appearance of the home and help strengthen the architectural design. Accent materials should be cohesive with the primary wall materials and other design elements of the home design.

Accent materials should be used to enhance the architectural style of the home. Accents used will vary as the architectural styles all have different identifying features (as described in the previous section). The colors and finishes of accent materials should be consistent with other exterior materials.

Approved secondary materials include:

- Wood siding or wood shingles
- Stone
- Stucco
- Brick, new or used
- Synthetic stone
- Corrugated steel
- Plate steel
- Concrete or composite siding
- Adobe

3.21 NUMBER OF WALL MATERIALS

Changes in wall material can lend visual interest to a building; too many changes can make the wall visually discordant. The objective is to create walls that are interesting, but not in competition with their surroundings.

Individual walls can be surfaced with two or three (3) different materials, depending on the architectural style of the home. Some architectural styles, such as Modern, may utilize only two exterior materials, while others such as Craftsman should incorporate three.

3.22 COLOR PALETTE

In general, exterior colors should be appropriate for the architectural style of the home and enhance the related design features. For exterior colors, the predominant tone should be toward hues that are not overly bright or flashy, regardless of the style. This will help the home to contrast yet be complimentary with the other homes on the street.

Slightly brighter tones may be utilized on select architectural elements such as front doors but should still be complimentary with the main exterior home colors. Entry door colors shall be approved by the Architectural Review Committee.

3.23 BALCONIES AND DECKS

Balcony and deck designs should be simple and consistent with the architectural style of the home. Balconies and decks should be integrated into the massing of the home and not appear as if they were added on later.

The use of long vertical or horizontal bands of balcony space are discouraged. Balconies should be proportional to the front façade of the home and enhance, not detract, from the main entry area.

Deck columns and railings should also match the design of the home. Designs such as Cottage or Craftsman should have more traditional railings, while Modern could incorporate more modern railings such as cable. Columns should in general be proportional to the roof areas they are supporting. Deck materials should generally consist of wood and/or composite.

Exterior staircases should incorporate materials and finishes that match those on the home. Staircases must be contained within building pads and outside setback areas.

3.24 GUTTERS AND DOWNSPOUTS

Gutters and downspouts, where utilized, shall be integrated into the design of the home as a continuous architectural element. They should not be visually intrusive to the overall design aesthetic of the home.

Gutters and downspouts should be comprised of metal or aluminum and match the exterior color scheme of the home. Plastic gutters and downspouts are not allowed.

3.25 CHIMNEYS AND VENTS

When utilized, exterior chimney elements must be proportional and consistent with the architectural style of the home and with approved exterior materials and colors. “False” chimneys used for ventilation must be consistent with real chimneys in look and proportions.

Chimney and roof vents must be painted to blend in. Reflective and shiny metal finishes may not be used and shall meet the requirements of section 3.14.

3.26 EXTERIOR LIGHTING

Exterior light fixtures should be appropriate to the architectural style of the home and enhance the overall design. Light fixtures should be limited to what is needed for safety and security but not be excessively distributed.

Exterior light fixtures are encouraged to be night sky-friendly, with light sources shielded from direct view and directionally pointed downward. Such compliant fixtures are readily available in all of the architectural styles offered in the Skye Area Plan.

3.27 RESIDENTIAL ADDRESS NUMBERS

Each residence should maintain address identification numerals in plain view on the front elevation of the home. Numbers should be proportionally appropriate to the massing of the front entry area of the home as well as the architectural style.

Address identification should not be placed on freestanding signs or markers, nor painted on curbs. The numbers should be mounted near the front entry where they can be seen from the street and shall meet the IRC R319.1 requirements.

4 Architectural Styles

The five architectural styles allowed under the Skye Area Plan will together create a community that is visually varied but cohesive, with buildings that complement one another but still have individual expression. This mix of styles builds on the history and long-term success of traditional neighborhoods in town planning, forming a desirable community that will continue to remain relevant. Each style is encouraged to incorporate a simplified design without overly expressed forms, colors and details. The style of the home will determine the architectural expression utilized, including roof pitch, window size and shape, and other architectural detailing.

Allowed architectural styles for Skye Area Plan single-family homes and multi-family housing include the following:

- Farmhouse
- Craftsman
- Prairie (n/a for multi-family)
- Transitional
- Modern

Owners and Builders are encouraged to utilize a mix of styles and variety of plans and elevations. Multi-family buildings to be a single style per building. Groupings or “pods” of same style architecture to be used throughout the community where possible in order to create a more cohesive streetscape. While architectural styles can be grouped, specific plans and elevations shall be varied in order to avoid repetitive homes adjacent to or across the street from one another.

4.1 FARMHOUSE

Background and Characteristics

Known for warmth, invitational draw and traditional design, the farmhouse-style has been popular for a very long time. The roots of farmhouse architecture have humble beginnings in the modest rural houses built by American pioneers throughout the 1700s and 1800s. Farmhouse-style homes were traditionally simple and one to two story in form, which made additions on the sides or back quite easy for growing families. The style usually features a front porch that connects the inside to out.

The modern take on this design is slightly stepped up from tradition, with clean contemporary lines and simplistic features. The front porch is still integral to the design. Vaulted ceilings and larger windows are now common to the style.

Main Elements of Farmhouse Style design shall include the following:

- Simple forms without excessive ornamentation
- 1 to 2 stories with steeper pitched roofs
- Forward facing gable roof with side wings that are shed, gabled or hip forms
- Large covered front porch with lower slope (2:12 – 4:12), sometimes wrap around; entry and porch oriented to the street
- Simple siding types, usually horizontal/clapboard siding, stucco or vertical board and batten
- Windows are generally vertically oriented single or double-hung windows; bay windows are also utilized; windows centered are common
- Simple square posts/columns and railings (see standard Farmhouse column design)
- Traditional Farmhouse exterior color palette should be single color with additional trim color is common. Although main color and trim can be the same in certain instances. Colors and trim schemes will be submitted and approved by the ARC.
- Typical main roof pitches shall be 6:12 to 12:12 slopes

*Architectural Review Committee shall review variances on a case-by-case basis.

4.2 CRAFTSMAN

Background and Characteristics

The American Craftsman style developed out the British Arts and Crafts movement, which dates back to the 1860s during the industrial revolution. This movement included not only architectural design, but interior design, landscape design, applied arts and decorative arts. The Craftsman architectural style was most widely used in small to medium sized Southern California single-family homes from about 1905, so the smaller-scale Craftsman style became known alternately as “California bungalow”. The style spread throughout the country and remained popular into the 1930s and has seen a recent revival.

Craftsman style is known for traditional simplicity, the use of natural materials, and moderate detailing. The style incorporates a visibly sturdy structure of clean lines and a prominent front porch with tapered columns. The roof has a shallow to mid-level pitch on a 1 ½ to 2 story home. Exterior materials include brick and hand-crafted wood, or stonework are common.

Main Elements of Craftsman style design shall include the following:

- Thicker, accentuated base with thick tapered columns supporting front porch (see standard Craftsman style columns)
- Gabled roofs incorporating dormers and/or deep overhangs (2' minimum)
- Asymmetrical massing with horizontal proportions
- Expressive but simplified elements such as exposed rafters, knee braces, brackets and tapered columns (see standard Craftsman style columns)
- Double hung windows are common, larger horizontal windows utilized in front
- Stucco, stone, brick and shingles are common exterior materials, usually n t all used together (limit palette to a single masonry and up to two "siding" materials)
- Single, rectilinear entry door is common
- Traditional Craftsman colors are appropriate. Colors and trim schemes will be submitted and approved by the ARC.
- Typical main roof pitches shall be 4:12 to 8:12 slopes

*Architectural Review Committee shall review variances on a case-by-case basis.

4.3 PRAIRIE

Background and Characteristics

The Prairie style emerged in Chicago around 1900 from the work of a group of young architects, including Frank Lloyd Wright, and was inspired to evoke the native prairie landscape. The architects melded the ideals of the Arts and Crafts movement, with its emphasis on nature, craftsmanship and simplicity, and the work and writings of architect Louis Sullivan.

This style is defined by a strong horizontal orientation, hip roofs, well-defined front porches and simple detailing found in simple horizontal banding and Arts & Crafts-style divided light windows.

Main Elements of Prairie style design shall include the following:

- One or two-story with strong horizontal orientation and banding, usually below windows
- One-story projections off of two-story center is common
- Lower-pitched roof, usually hip form, broad, overhanging eaves (2’ min. but as much as 3’)
- Wide, prominent front porches are common
- Ribbons of windows emphasize horizontality of overall design
- Entry door and porch integrated into design, thick square columns (see standard Prairie style column design)
- Windows done in horizontal groupings in divided light form; sometimes wrap around corners
- Brick, stucco or siding (horizontal only) exterior, railings can be masonry walls
- Simple, less bright earth-tone colors are best. Colors and trim schemes will be submitted and approved by the ARC.
- Typical main roof pitches shall be 3:12 to 6:12 slopes

*Architectural Review Committee shall review variances on a case-by-case basis.

4.4 TRANSITIONAL

Background and Characteristics

Transitional architectural style is a blending of Traditional style with more contemporary or modern design styles. The combined styles create a cohesive feeling that facilitates modern living.

Transitional homes are classic with a contemporary twist. They combine elements of both traditional and modern styles to create a seamless balance between both worlds. The result is an elegantly enduring design that boasts comfort, clean lines, and a strong presence. Traditional style is updated with simplified elements, clean lines, larger windows, and an inviting overall look and feel.

Main Elements of Transitional style design shall include the following:

- Elements of multiple styles, traditional mixed with contemporary
- Clean lines and minimalistic approach
- Oversized, often asymmetrical window arrangements
- Gables roofs for primary and upper stories, and hip or flat roofs for lower and secondary elements are typical
- Masonry bases with siding and/or stucco at upper masses
- Porch posts can be steel, stucco, wood or have stone clad bases
- Wide variety of colors possible, from traditional to lighter and brighter, but higher contrast color schemes are common. Colors and trim schemes will be submitted and approved by the ARC.
- Typical main roof pitches shall be flat roof to 12:12 slopes
- Large gable faces to be accented with “slit” style gable vents

*Architectural Review Committee shall review variances on a case-by-case basis.

4.5 MODERN

Background and Characteristics

Modern architecture (or Contemporary architecture) evolved from the early Arts and Crafts movement and later the Prairie home movement and progressed over time along with improvement in contemporary building techniques. It has been around for most of the last century and responded and adapted to the progress of modern technology.

Modern homes are designed with simple, clean lines, open spaces with large windows, and a strong connection between indoors and outdoors. Ornamentation is limited, letting the form and function of the structure stand out. Natural light and simple, natural exterior materials are emphasized. Roof forms are simplified as well, with flat or gently sloped roofs incorporated in the minimalist design.

Main Elements of Modern style design shall include the following:

- Emphasis on indoor/outdoor living and functional living spaces
- Simple clean lines and massing of home
- Roof forms are flat, shed, or simple gable in form (no hip roofs)
- Large windows (no mullions or divided lights) offer connection to outdoors and bring in natural light; corner windows are common as are asymmetrical ones
- Porch columns have focus on structure and lightness, such as steel, wood or siding
- Stucco, masonry, or siding (typically horizontal) exterior palette shall be used
- Lighter, brighter home colors with higher contrasting schemes shall be used. Colors and trim schemes will be submitted and approved by the ARC.
- One masonry and two exterior siding and/or stucco materials are appropriate
- Typical main roof pitches shall be flat roof to 6:12 slopes

*Architectural Review Committee shall review variances on a case-by-case basis.

5 Appendices

5.1 DEFINITIONS

The terms defined herein shall have meanings as defined below, as set forth in the Design Guidelines for the Skye Area Plan:

1. Architect: A licensed Architect or Designer engaged by an Owner to provide professional architectural services
2. Association: The Skye Area Plan Homeowners Association.
3. City: City of Lehi, Utah.
4. Contractor(s): An Owner's licensed and insured general contractor or builder (including any and all of such Contractor's personnel, subcontractors, agents, suppliers, and other Person working in conjunction with the construction of improvements on Owner's lot.)
5. Developer: The DR Horton development team, their successors, and assigns, also referred to in the governing documents as the "Declarant" for the Project.
6. Landscape Architect: A licensed Landscape Architect engaged by an Owner to provide professional landscape design services for a home or building project.
7. Plans: Any and all site plans, floor plans, elevations, drawings, specifications, models, photos and/or other items submitted.
8. Project: All subject areas included in the Skye Area Plan community.
9. Site: The specific Lot or parcel of real property within the Project.
10. Survey: A technical, topographical study of a Site by a Licensed Surveyor required as part of the home design process.

Residential Fencing Design Standards – Skye Area Plan

1. Prior to installation all fences must be approved by the ARC.
2. All fences, walls and hedges shall not exceed six (6) feet in height, unless special exception permit is authorized by both the ARC and Lehi City.
3. Fences, walls or hedges located on the front property line, or which are located within fifteen (15) of a front property line, or located on a side yard property line adjacent to a street, shall not exceed forty-eight (48) inches in height as measured from the adjacent sidewalk or finished grade.
4. Chain link, barbwire and other similar type fences are not allowed.
5. Clear View Area at Street Intersections. In all residential districts no obstruction to public or private street views in excess of three (3) feet in height above the finished road grade shall be placed on any corner lot within a triangular area formed by the streets at the property lines and line connecting them at points 35 ft. from the intersection of the street right-of-way lines.
6. Side yard fences shall be set back a minimum of two (2) feet from the front facade of the house.
7. Fences along trail corridors and adjacent to open space are encouraged. Fencing located on property in the TMB shall not be subject to the residential fencing requirements in these Guidelines. Such fencing is not required to be reviewed or approved by the ARC.
8. Front yards on rear loaded homes may have fencing that is less than 3 ft. in height along the front and side-yard property lines. Privacy fences up to 6' in height are permitted on the side yard property lines starting 2' behind the front façade of the homes.
9. Developer reserves right to modify fencing requirements with approval of Lehi City Staff/reviewing departments.
10. Lehi City storage and pumping facilities may have black vinyl coated chain link fences with barbed wire.

Skye Area Plan Parking Requirements

- Single-Family Dwelling - 2 stalls per dwelling unit (not in tandem configuration) to be within a fully enclosed garage.
- Two-Family Dwelling - 2 stalls per dwelling unit (not in tandem configuration, unless one of the parking stalls is inside a fully enclosed garage). 1 stall per unit to be within a fully enclosed garage.
- Three-Family Dwelling - 2 stalls per dwelling unit (not in tandem configuration, unless one of the parking stalls is inside a fully enclosed garage). 1 stall per unit to be within a fully enclosed garage.
- Four-Family Dwelling - 2 stalls per dwelling unit (not in tandem configuration, unless one of the parking stalls is inside a fully enclosed garage). 1 stall per unit to be within a fully enclosed garage.
- Townhouses - 2 stalls per dwelling unit (not in tandem configuration, unless one of the parking stalls is inside a fully enclosed garage) + 1 guest parking space per 3 dwelling units. 1 space per unit to be within a fully enclosed garage or underground parking structure.
- Multi-Family Dwellings with one bedroom or less (>4 dwelling units) - 1 stall per dwelling unit + 1 guest parking stall per 3 dwelling units. 1 stall per unit to be within a fully enclosed garage or parking structure.
- Multi-Family Dwellings with two or more Bedrooms (>4 dwelling units) - 2 stalls per dwelling unit (not in tandem configuration, unless one of the parking stalls is inside a fully enclosed garage) + 1 guest parking stall per 3 dwelling units. 1 stall per unit must be within an enclosed garage or parking structure.
- Condominiums - 2 stalls per dwelling unit (not in tandem configuration, unless one of the parking stalls is inside a fully enclosed garage) + 1 guest parking space per 3 dwelling units. 1 space per unit to be within a fully enclosed garage or parking structure.
- All product types - Street parking can count towards guest parking stalls.

Skye Area Plan

BUFFERS AND OPEN SPACE SECTION

Prepared By:

ENGINEERS
SURVEYORS
PLANNERS

3302 N Main Street
Spanish Fork, UT 84660
(801) 798-0555

PROJECT BUFFERS

NORTH

The north side of Skye is buffered entirely by native hills and vegetation. Buffer areas will be placed on the north of the project between the native land and the development to provide drainage and access to future trails. This buffer will include trails that will also serve as a fire access road where topography will allow. A fire access road will also be provided in the future along the north buffer as future development occurs.

EAST

Highland Boulevard and an existing residential subdivision buffer the Skye area plan to the east. There will be three access points on Highland Boulevard, and a masonry fence and landscaping will be installed along the road. Larger estate lots will also border the existing subdivision and provide a landscape buffer with the larger backyards. The east side of the development will also be buffered by a trail connection.

SOUTH

The south side of the development will be buffered by the SR-92 highway and by an additional Technical Manufacturing buffer that will maintain native vegetation separating the development from the technical manufacturing area except to the extent such buffer area is developed consistent with the Skye Area Plan Table of Uses. A landscaped storm water detention area to the south of the project will also provide a buffer of open space between the development and the SR-92 highway.

WEST

The west side buffer consists of existing residential developments and roadways. A large triangular parcel on the west will remain as unimproved open space and will act as a buffer between an existing subdivision and the new development. An open space buffer will also be on the west of the project to serve as a buffer to the Canyon Hills development.

INTERIOR BUFFERING

No buffers will be used between separate residential pods because they will be built in ways that are harmonious with each other. However, a 12’ landscape buffer will be required between all commercial and residential areas, unless otherwise approved by the reviewing departments and Planning commission. Privacy fencing will also be installed per city standard to separate commercial and residential areas.

OPEN SPACE AREAS

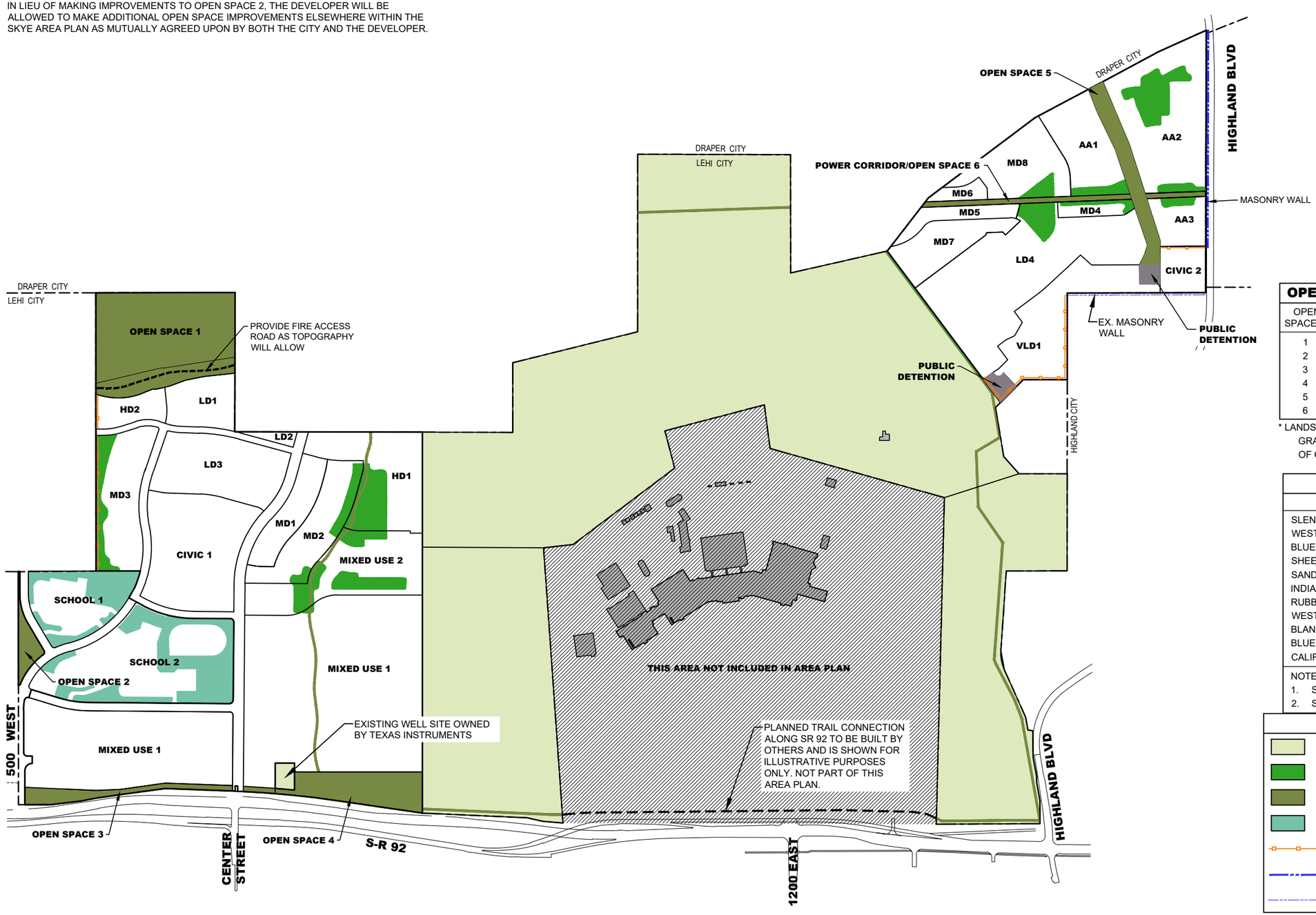
Improved and unimproved, native open space will be placed in pod areas throughout the development to provide beauty, space and recreation to residents. The project will provide approximately 92 acres of open space as was presented to and approved by the city council in the concept plan. A portion of this will be dedicated as public open space and the rest will be designated as privately owned and maintained. The intent of the project is to have usable open space uniformly dispersed throughout the development so that there is open space within ½ mile of all residences. Public open space parcels will be dedicated to the city as adjacent pod areas are developed. Any disturbed land should be hydro-seeded according to the re-vegetation detail shown on Sheet OS-3 prior to the dedication. Once dedicated, the public parcels should not be disturbed with any construction equipment or material, except as approved by the city. The table in Appendix A provides a summary showing the approximate amount of open space that will be provided throughout the project based on the latest concept plan. Refer to Sheet OS-3 for a map showing the design intent of the buffers and open spaces.
Private parks and private open spaces shall be platted and developed simultaneously and proportionately with the entire development. There are 36.31 acres of private open space/parks within the development and there are a total of 1751 ERU's approved. Therefore, 48 ERU's should be platted with no less than 1 acre of private open space. The first plats submitted to the city may be for backbone roads and the church/civic site regardless of the ratio of ERU's to private open space. Each plat submitted thereafter shall result in the aggregate private open space and ERU's of the current and all previously submitted plats maintaining the ratio of at least 1 acre of private open space per 48 ERU's.

TRAILS

Trails will be constructed throughout the project to provide connectivity from existing trails on the south up to the city's master planned trails to the north. All master plan trails will be constructed by the developer. Any master planned trails that do not sit along roadways will be reimbursed by Lehi City. All trails shall be designed and constructed as each adjacent phase develops. The development of any given phase shall serve as a trigger to develop the adjacent section of trail. Refer to OS-4 for the locations of all planned trails within the development as well as required cross section standards for all types of trails.

NOTES

1. OPEN SPACE WILL BE PROVIDED UNIFORMLY THROUGHOUT THE DEVELOPMENT SO THAT ALL DWELLINGS ARE LESS THAN 1/2 MILE FROM THE NEAREST OPEN SPACE AMENITY.
2. PROJECT WILL PROVIDE SUFFICIENT OPEN SPACE TO MEET THE REQUIRED AMOUNT OF 92 ACRES PER CITY COUNCIL APPROVAL.
3. REFER TO SHEET OS-4 FOR LOCATION AND DETAILS OF ALL MASTER PLANNED TRAILS IN THE DEVELOPMENT.
4. ALL CUT SLOPES AND DISTURBED OPEN SPACE AREAS TO BE RE-SEEDED ACCORDING TO SEED MIX DETAIL PROVIDED ON THIS SHEET.
5. ALL LOTS ALONG THE NORTHERN BOUNDARY OF THE AREA PLAN SHALL MAINTAIN AT LEAST A 30' BUFFER BETWEEN NATIVE VEGETATION AND NEW STRUCTURES. ANY BUILDINGS THAT DO NOT MAINTAIN THIS BUFFER WILL BE REQUIRED TO INSTALL FIRE SPRINKLERS.
6. IN LIEU OF MAKING IMPROVEMENTS TO OPEN SPACE 2, THE DEVELOPER WILL BE ALLOWED TO MAKE ADDITIONAL OPEN SPACE IMPROVEMENTS ELSEWHERE WITHIN THE SKYE AREA PLAN AS MUTUALLY AGREED UPON BY BOTH THE CITY AND THE DEVELOPER.



OPEN SPACE MAINTENANCE TABLE

OPEN SPACE ID	LANDSCAPE TYPE	LANDSCAPE MAINTAINED BY
1	NATIVE VEGETATION	CITY
2	NATIVE VEGETATION	CITY
3	NATIVE VEGETATION	CITY
4	LANDSCAPED*	CITY
5	NATIVE VEGETATION	CITY
6	NATIVE VEGETATION	CITY

* LANDSCAPED AREAS ARE TO BE IMPROVED WITH EITHER GRASS/SPRINKLERS OR APPROVED EQUIVALENT VALUE OF OPEN SPACE IMPROVEMENT.

RE-VEGETATIVE SEED MIX

SPECIES	%
SLENDER WHEATGRASS	15
WESTERN WHEATGRASS	17.5
BLUEBUNCH WHEATGRASS	16.25
SHEEP FESCUE	3.5
SANDBERG BLUEGRASS	2.75
INDIAN RICEGRASS	10
RUBBER RABBIT BRUSH	5
WESTERN SAGE	5
BLANKET FLOWER	5
BLUE FLAX	10
CALIFORNIA POPPY	10

NOTES:
1. SEEDING RATE IS 20 LBS PER ACRE
2. SEEDMIX PROVIDED BY GRANITE SEED, LEHI, UT

LEGEND

- TECHNICAL MANUFACTURING BUFFER
- IMPROVED PRIVATE OPEN SPACE
- PUBLIC OPEN SPACE
- SCHOOL GREEN SPACE
- 6' PRIVACY FENCE
- MASONRY WALL - PROPOSED
- MASONRY WALL - EXISTING

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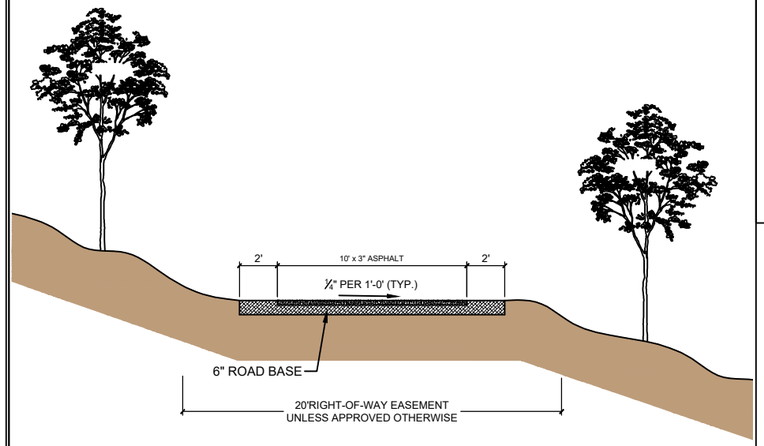
SKYE
LEHI, UTAH

BUFFER & OPEN SPACE PLAN

REVISIONS
1 -
2 -
3 -
4 -
5 -

LEI PROJECT #: 2020-0067
DRAWN BY: RWH
DESIGNED BY: BCT
SCALE: 1" = 1000'
DATE: 7/15/2022
SHEET
OS-3

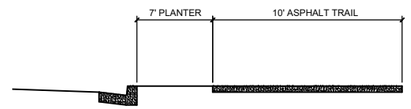


NOTES:

1. CROSS SECTION MAY BE ADJUSTED DEPENDING ON EXISTING CONSTRAINTS AS APPROVED BY THE LEHI CITY ENGINEER.
2. 2' COMPACTED SHOULDER MUST SLOPE AT A 6:1 MAX SLOPE ON EACH SIDE OF THE PAVED TRAIL.
3. SLOPE TRAIL AS NECESSARY TO AVOID PONDING. PROVIDE DRAINAGE IMPROVEMENTS ALONG TRAIL AS REQUIRED TO CONVEY POSSIBLE STORM FLOWS.
4. CONTRACTOR SHALL REMOVE ALL FOLIAGE, ROOTS AND WASTE MATERIALS WITHIN A 12" ZONE BENEATH BASE COURSE. 12" ZONE SHALL THEN BE COMPACTED PRIOR TO PLACEMENT OF ROAD BASE COURSE. CONTRACTOR SHALL ALSO PLACE GROUND STERILANT PRIOR TO PLACEMENT OF ROAD BASE.
5. ALL PEDESTRIAN TRAIL DESIGN PLANS SHALL BE REVIEWED AND APPROVED BY LEHI CITY STAFF PRIOR TO CONSTRUCTION.

LEHI CITY STANDARD TRAIL DETAIL

DETAIL 1

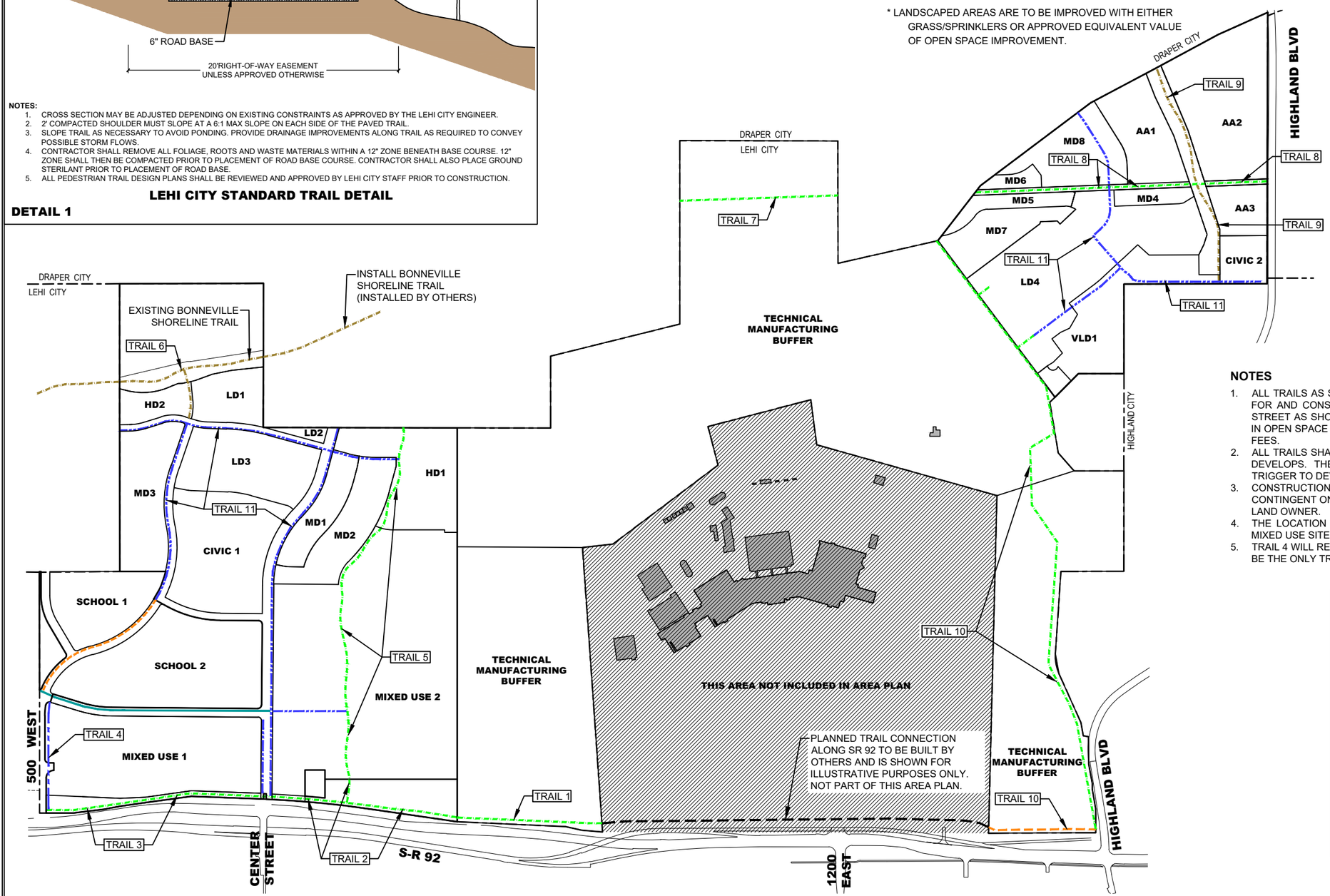


DETAIL 2 - R.O.W. TRAIL

TRAIL MAINTENANCE TABLE

TRAIL ID	LOCATION DESCRIPTION	ROW WIDTH (FT)	TRAIL WIDTH (FT)	TRAIL SURFACE	TRAIL MAINTAINED BY	LANDSCAPE TYPE	LANDSCAPE MAINTAINED BY
1	T/M BUFFER ZONE - WEST SIDE	20	10	ASPHALT	CITY	NATIVE VEGETATION	CITY
2	OPEN SPACE 4 PARCEL	20	10	ASPHALT	CITY	LANDSCAPED*	CITY
3	OPEN SPACE 3 PARCEL	20	10	ASPHALT	CITY	NATIVE VEGETATION	CITY
4	EAST SIDE OF 500 W	17	10	ASPHALT	CITY	LANDSCAPED*	HOA
5	MIXED USE 2 PARCEL/HD1 PARCELS	20	10	CONCRETE/ASPHALT	CITY	LANDSCAPED*	HOA
6	OPEN SPACE 1 PARCEL	TBD	TBD	DIRT	CITY	NATIVE VEGETATION	CITY
7	T/M BUFFER ZONE - NORTH SIDE (IN POWER CORRIDOR)	50	10	ASPHALT	CITY	NATIVE VEGETATION	CITY
8	EAST SIDE POWER CORRIDOR	50	10	ASPHALT	CITY	NATIVE VEGETATION	CITY
9	OPEN SPACE 5 PARCEL	TBD	TBD	DIRT	CITY	NATIVE VEGETATION	CITY
10	T/M BUFFER ZONE - EAST SIDE	20	10	ASPHALT	CITY	NATIVE VEGETATION	CITY
11	ANY TRAILS ALONG PUBLIC ROW'S	17	10	ASPHALT	CITY	LANDSCAPED*	HOA

* LANDSCAPED AREAS ARE TO BE IMPROVED WITH EITHER GRASS/SPRINKLERS OR APPROVED EQUIVALENT VALUE OF OPEN SPACE IMPROVEMENT.



NOTES

1. ALL TRAILS AS SHOWN HERE ARE MASTER PLANNED TRAILS AND SHALL BE PAID FOR AND CONSTRUCTED BY THE DEVELOPER. ANY TRAILS LOCATED ALONG A STREET AS SHOWN IN DETAIL 2 CANNOT BE REIMBURSED. ANY TRAILS LOCATED IN OPEN SPACE AS SHOWN IN DETAIL 1 SHALL BE REIMBURSED THROUGH IMPACT FEES.
2. ALL TRAILS SHALL BE DESIGNED AND CONSTRUCTED AS EACH ADJACENT PHASE DEVELOPS. THE DEVELOPMENT OF ANY GIVEN PHASE SHALL SERVE AS A TRIGGER TO DEVELOP THE ADJACENT SECTION OF TRAIL.
3. CONSTRUCTION OF TRAILS IN THE TECHNICAL MANUFACTURING BUFFER AREA IS CONTINGENT ON EASEMENTS BEING GRANTED TO LEHI CITY FROM THE CURRENT LAND OWNER.
4. THE LOCATION OF TRAIL 5 IS APPROXIMATE AND SHALL BE FINALIZED AS THE MIXED USE SITES DEVELOP.
5. TRAIL 4 WILL REPLACE THE EXISTING SIDEWALK THAT RUNS ALONG 500 W. IT WILL BE THE ONLY TRAIL ALONG A ROW THAT WILL BE REIMBURSABLE BY THE CITY.

LEGEND

- PROPOSED TRAIL (TO BE CONSTRUCTED BY CITY AT SOME FUTURE TIME OR TO BE CONSTRUCTED BY DEVELOPER AND REIMBURSED THROUGH FUNDS OTHER THAN SKYE IMPACT FEES)
- EXISTING TRAILS
- PROPOSED R.O.W. TRAIL (TO BE CONSTRUCTED BY DEVELOPER) (SEE DETAIL 2 ABOVE)
- PROPOSED 20' TRAIL CORRIDOR (SEE DETAIL 1 ABOVE)
- PROPOSED MULTI-USE NATURAL SURFACE TRAIL (TO BE CONSTRUCTED BY DEVELOPER)

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SKYE
LEHI, UTAH

ACTIVE TRANSPORTATION PLAN

REVISIONS
1 -
2 -
3 -
4 -
5 -

LEI PROJECT #: 2020-0067
DRAWN BY: RWH
DESIGNED BY: BCT
SCALE: 1" = 1000'
DATE: 7/15/2022

SHEET
OS-4

Private Open Space			
Pod Name	**Approximate Landscaped Area (ac)**	**Total Pod Area (ac)**	**% of Landscaping**
AA1	2.46	11.10	22.20%
AA2	4.51	24.62	18.32%
AA3	0.91	5.31	17.17%
HD1	5.04	16.30	30.89%
HD2	1.10	4.42	24.99%
LD1	0.00	7.09	0.00%
LD2	0.00	1.01	0.00%
LD3	0.00	16.14	0.00%
LD4	2.09	35.72	5.85%
MD1	0.10	6.92	1.45%
MD2	2.22	11.42	19.43%
MD3	2.55	14.21	17.93%
MD4	0.73	2.43	30.03%
MD5	0.00	3.79	0.00%
MD6	0.18	1.76	10.10%
MD7	0.08	8.32	1.01%
MD8	1.58	11.89	13.26%
Mixed Use 1[2]	3.38	33.77	10.00%
Mixed Use 2[2]	8.11	81.09	10.00%
VLD1	1.27	15.71	8.09%
School 1[3]	N/A	12.71	N/A
School 2[3]	N/A	30.27	N/A
Civic 1[4]	N/A	22.59	N/A
Civic 2[4]	N/A	4.44	N/A
Total Private Open Space (ac)	**36.31**	**4.68% of Gross Area (775.30 ac)**	

Public Open Space		
Open Space Location	**Area (ac)**	
Open Space 1	27.39	
Open Space 2	2.26	
Open Space 3	3.71	
Open Space 4	9.14	
Open Space 5	5.95	
Public Trails[1]	6.11	
Power Corridor (Open Space 6)	2.95	
Power Corridor Deduction	-1.81	
Total Public Open Space (ac)	**55.69**	**7.18% of Gross Area (775.30 ac)**

Total Open Space Provided (ac)	**92.00**	**11.87% of Gross Area (775.30 ac)**
Total Open Space Required (ac)	**77.53**	**10.00% of Gross Area (775.30 ac)**

Notes:

1. Public Trails area includes trail easement through technical manufacturing buffer and the trails going through the project on the west side
2. Landscaped areas for these pods were assumed to be the minimum requirement of 10%.
3. School pods are existing and are assumed to have already met the minimum landscaping requirement of 10%. School pods have been omitted from these open space area plan calculations, including the total open space provided and the gross area.
4. The landscaping within civic pods is not considered to be usable or public open space. Therefore, civic pods have been omitted from these open space area plan calculations, including the total open space provided and the gross area.

Plat and Site Plan Approval Processes

Plat Approval Process

The following items on the Lehi City checklist for Preliminary plat will <u>not</u> be required for the Skye Area Plan.

- Application Submittal Procedures 3e, 3f, 3g.
- Application Requirements: 1, 5, 7, 11, 12, 13b, 15e, 15f, 15g, 15h, 17, 20 (Temporary road naming shall be used for reference), 21a, 21b, 29 (Don't show Proposed manholes, depths grades, etc. for vertical information), 30, 31, 32, (Only show existing and proposed trunk lines including anticipated size, do not show depths, inlets, manholes, etc.), 33(Show location of proposed detention/retention basins only), 34, 35, 36, 37, 38e, 39, 42 (included in Area plan), 45, 46, 48, 49.
- The pertinent information that has been removed from the preliminary submittal will be submitted with the Final Plat.

The approval process for the Skye Area Plan plat approval will be as follows:

- A Preliminary Plat application and fees will be filed along with a preliminary plat that follows the guidelines listed on the City Checklist with the exceptions listed above. There will be a 7-day noticing period for the public hearing at Planning Commission for recommendation. City Council will follow with no public comment for final preliminary approval.
- Then final plans and plat will be prepared and submitted. Lehi City reviewing departments will review plan and approve the final plat. The final plat will be staff level approval only.

Site Plan Approval Process

- Section 11.240 (Site Plan Approval Process) is to be modified as follows: All site plans will be an administrative approval unless seeking an exception from the Area Plan or City's Development Code.

Section 3 – Utilities

- Power
- Sewer
- Storm Water
- Water - Culinary
- Water - P.I.

Area Master Plan/Load Study for Micron Site Development

August 16, 2021

For: D.R. Horton

Micron Site Development

By: Michael Anderson, P.E. Utah 10652558-2202

Active Power Engineering, LLC

Executive Summary: This area plan/load study--required by the Lehi City Power Line Extension Policy--analyzes connecting the proposed load of the Micron Site development. The estimated load of the development is 10.62 MW (11.18 MVA). There is not existing capacity on the Lehi Power Littlefield substation and feeders for this amount of load. To serve the estimated load of this development an additional substation and feeders are needed. The Rocky Mountain Power 138 kV transmission line will need to be tapped to feed the new substation.

Scope: This area plan/load study analyzes for connection to the Lehi City power system the proposed load on the Micron site, a D.R. Horton development concept. Also included in the study are preliminary recommended locations of a new substation and power distribution feeder loops required to serve the development. The basis of this study are the development concept drawings and information provided by D.R. Horton. In addition, information on the Lehi City power system was provided by the Lehi City Power Department and was used in performing this study.

The requirements used in performing this analysis are shown in Table 1.

Table 1-Requirements

Requirement	Source
Connect and serve the proposed electrical load	D.R. Horton (Developer)
Perform Area Plan/Load Study for estimated load over 1 MW	Lehi City Power Line Extension Policy
Looped Feed system for developments with over 30 units	Lehi City Power Line Extension Policy
Substation transformers and feeders loaded less than 60% of rated capacity in normal operation	Lehi City Power Design Criteria
Customer/developer obtains and furnishes right-of-way and/or easements	Lehi City Power Line Extension Policy
Customer/developer installs curb, gutter, and sidewalk indicating permanent grade before electrical distribution lines are installed	Lehi City Power Line Extension Policy

Proposed Connected Load Estimate: D.R. Horton proposes to connect an estimated 10.62 MW of load (11.18 MVA at 0.95 power factor) for 1,597 residential units, mixed use units, parks, churches, and schools. The Lehi City Power Department Line Extension Policy requires this area plan/load study because the total estimated load is over 1,000 kW (1 MW) for this development.

Load estimates were based on the type and number of units proposed as provided in the information from D.R. Horton (refer to "Tabulations" on Figure 1 in the Appendix). The typical loads for the various types of units are the same as those used for other developments proposed in Lehi. The total load for the development was estimated using the typical unit loads, the number of units, and a coincidence factor (See Table 2). The load calculations were based on gas water heating and gas space heating. A demand coincidence factor was applied to account for the peak power use not occurring at the same time for all the units.

Table 2 -- Micron Site Development Load Estimate

Load Estimate based on:		Gas Heat				
Use/Type	**# Units (or ERUs)**	**kW per**	**Coincidence Factor**		**Total MW**	**Total MVA (0.95 p.f.)**
Mixed Use	464	6.2	0.72		2.07	2.18
Townhomes	565	5.5	0.68		2.11	2.22
Cottage	129	6	0.7		0.54	0.57
Horton Plus	205	7.5	0.7		1.08	1.13
Emerald	199	8	0.7		1.11	1.17
Estate	129	10	0.7		0.90	0.95
Active Adult	370	6	0.7		1.55	1.64
Parks and Open Space	16	10	1		0.16	0.17
Civic (Church/School)	170	8	0.8		1.09	1.15
Total	**2,247**			**Total**	**10.62**	**11.18**

Actual load of this development may be higher or lower than the estimate provided in this report based on the final unit types and unit numbers that are ultimately built.

For this study the new load is assumed to be connected over a seven-year period. Without more information on the exact amount of load that would be added each year it was assumed for this study that seven equal increments of load are connected. The first load increment would be built in 2022 and be seen on the Lehi Power system during the 2023 summer peak.

Available Power Facilities: There are four Lehi City 12.47 kV distribution feeders and one Lehi City substation in the area that were evaluated for serving the proposed load. Lehi City Power uses a design criteria of loading substation transformers and feeders to no more than 60% of rated capacity. Substations in the area that are projected to already be heavily load were not considered for serving the proposed load.

Littlefield substation has two transformers that are each rated 33 MVA. There are three distribution feeders for each transformer, but only four feeders are located where they can serve the development area. Table 3 shows the load recorded in 2021 on each substation transformer and the feeders that could serve the new load, as well as the forecasted 2023 loading on each.

Table 3-Transformer and Feeder Loading

					Base Year		Forecast without Micron Site Development	
					2021		2023	
Substation	Transformer	Feeder	100% Capacity*	Units	Load	Capacity Utilization (%)	Load	Capacity Utilization (%)
Littlefield	T1		33	MVA	6.8	21%	11.1	34%
		812	500	amps	0	0%	2	0%
		813	500	amps	194	39%	272	54%
Littlefield	T2		33	MVA	10.1	31%	15.2	46%
		821	500	amps	138	28%	321	64%
		822	500	amps	0	0%	0	0%

* Lehi Power design criteria limits normal operating capacity of transformers and feeders to 60%

Analysis of Development Load Addition: The Micron site development is estimated to add a total of about 11.18 MVA (518 amps) of load to whatever substation transformers and feeders it is fed from. About 1.6 MVA (about 73 amps) of load is added each year for seven years in this study.

Table 4 shows the impact of the Micron site development load at full buildout on the Littlefield substation transformers and feeders if Littlefield substation feeders alone are used as the source to feed the development.

Table 4--Micron Site Development Load Impact

					Forecast with Micron Site Development on Littlefield Sub	
					at Full Buildout	
Substation	Transformer	Feeder	100% Capacity*	Units	Load	Capacity Utilization (%)
Littlefield	T1		33	MVA	17.58	53%
		812	500	amps	172	34%
		813	500	amps	367	73%
Littlefield	T2		33	MVA	24.19	73%
		821	500	amps	332	66%
		822	500	amps	322	64%

* Lehi Power design criteria limits normal operating capacity of transformers and feeders to 60%

Littlefield transformer T2 would be loaded above the 60% design criteria at full buildout of this development. Feeders 813, 821, and 822 would be used to serve the new load and would be loaded over their 60% capacity limits. Feeder 812 is used to offload 821 so new load can be served from 821. Another substation transformer and additional feeders appear to be needed in the area to achieve the capacity required by the Lehi Power design criteria and serve the development's load at full buildout.

Analysis of the load addition in increments over seven years shows which year new capacity is needed. Littlefield substation transformers and feeders have capacity for the new load added in 2023 through 2026, but additional load growth beyond 2026 would require new capacity in the form of a new substation, transformer, and feeders. The table that shows this analysis is in Figure 4 in the appendix.

Required System Additions: There are several system improvements and additions required in this area for connecting the estimated 10.62 MW (11.18 MVA) load for the Micron site development. The projects are listed in Table 5.

Table 5--Required System Additions

#	Project Description	Year Needed	Summary
1	Cross SR-92 with 822 & tie to 813	2023	Bore under SR-92 and two aqueducts. Tie 822 and 813. Feed new load from 822. *This project is in planning at Lehi Power for 2021-22 to make a loop feed for 813.*
2	Connect 812 to 821	2024	Extend 812 along Bull River Rd. Bore under SR-92 and two aqueducts. Tie 812 and 821. Transfer load from 821 to 812. Feed new development load from 821.
3	New Substation with 4 new feeders	2027	Build a new substation with one 33 MVA transformer and 4 new feeders. Tap the RMP 138 kV transmission line and connect to the new substation. Tie two new feeders from the new substation to 821 and 822. Use the other two new feeders to serve load east of new substation.

Projects #1 and #2 install new crossings of SR-92 extending Littlefield substations feeders to points on the north side of SR-92 where they can be used to serve the load of the development.

Project #3 is an additional substation transformer with four new feeders that is needed to serve the development load beyond 2026 to full build out. Property for the substation—zoned as public facilities—will need to be provided. The Rocky Mountain Power 138 kV transmission line will need to be tapped to feed the new substation. Two of the four new feeders from the substation feed the area east of the new substation and two other feeders from the new substation are needed to tie to 821 and 822.

All feeders need to be installed in public utility easements where they are accessible to Lehi City Power's heavy equipment. Figure 3 in the Appendix shows most feeders following the roads in the development concept. The route shown to connect new feeders to the area east of the new substation is shown following the proposed trail network since this was the only improvement indicated in the area. This route will need to be built to be accessible to the utility's heavy equipment, or another suitable route must be identified. Connection of power and other utilities (water, sewer, etc.) to the east area of the development will likely follow the same route.

The drawings in the Appendix are based on the development layouts provided by D.R. Horton and have been marked-up to show existing and required substations and power distribution feeders. Final layouts are subject to change before final approval. The drawings in this report are preliminary and not for construction.

Summary: The estimated load of the Micron Site development is 10.62 MW (11.18 MVA) depending on the final unit types and unit numbers that are ultimately built. There is not enough existing capacity on the existing Littlefield substation and feeders in the area for the load at full buildout. To serve the estimated load of this development an additional substation and feeders are needed. The Rocky Mountain Power 138 kV transmission line will need to be tapped to feed the new substation.

Maps/Drawings

Figure 1. Development Concept and Vicinity Map

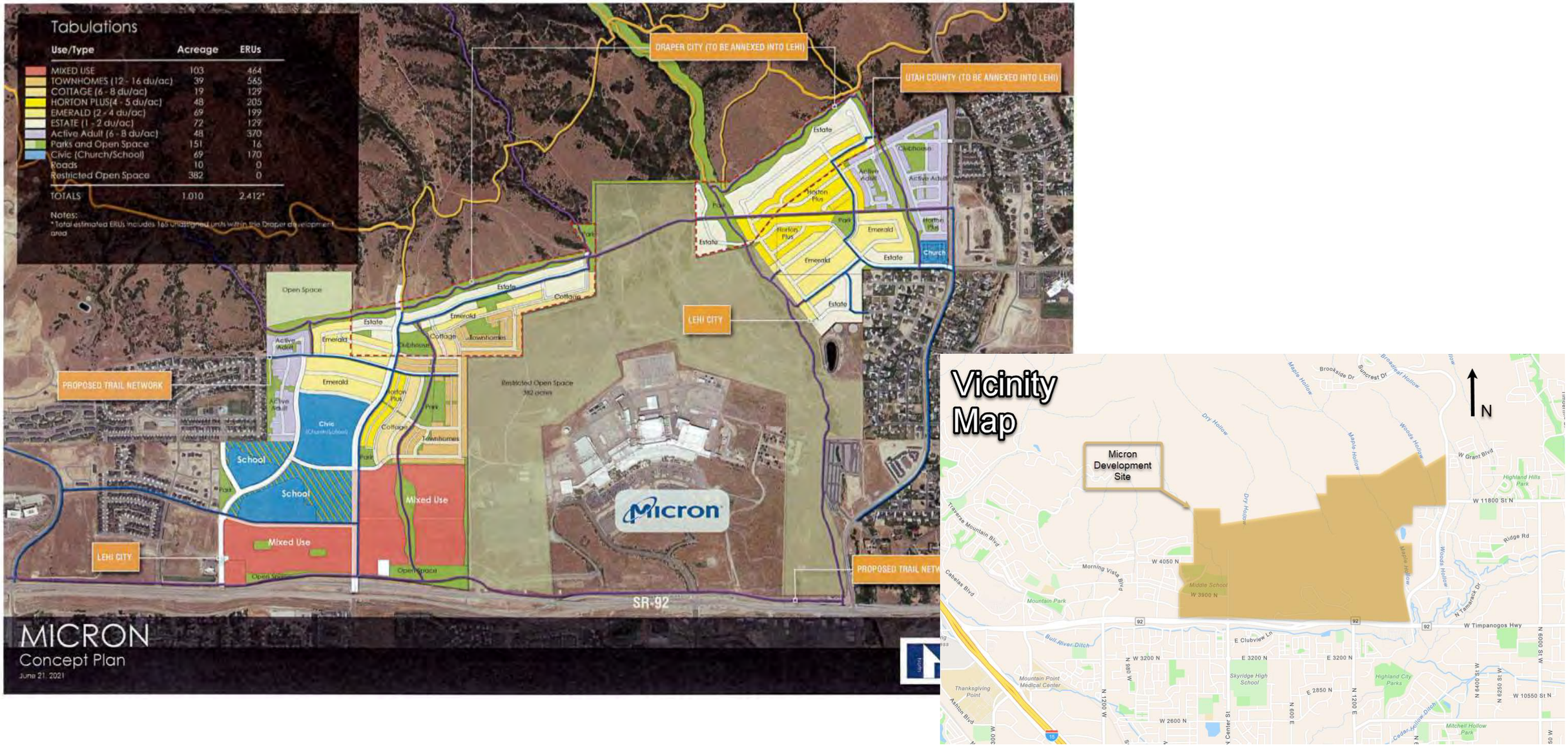


Figure 2. Lehi City Power Substations and Feeders

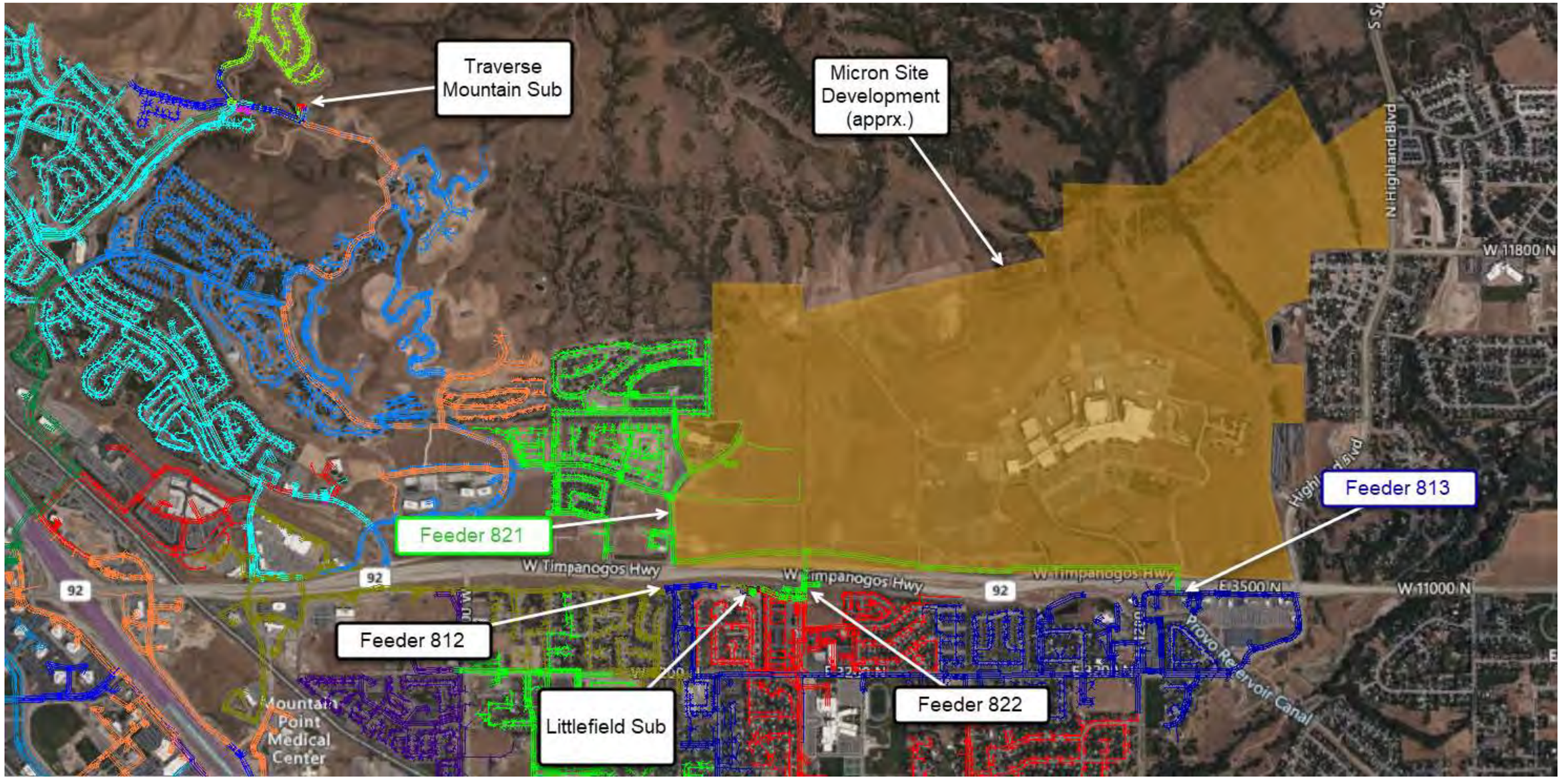
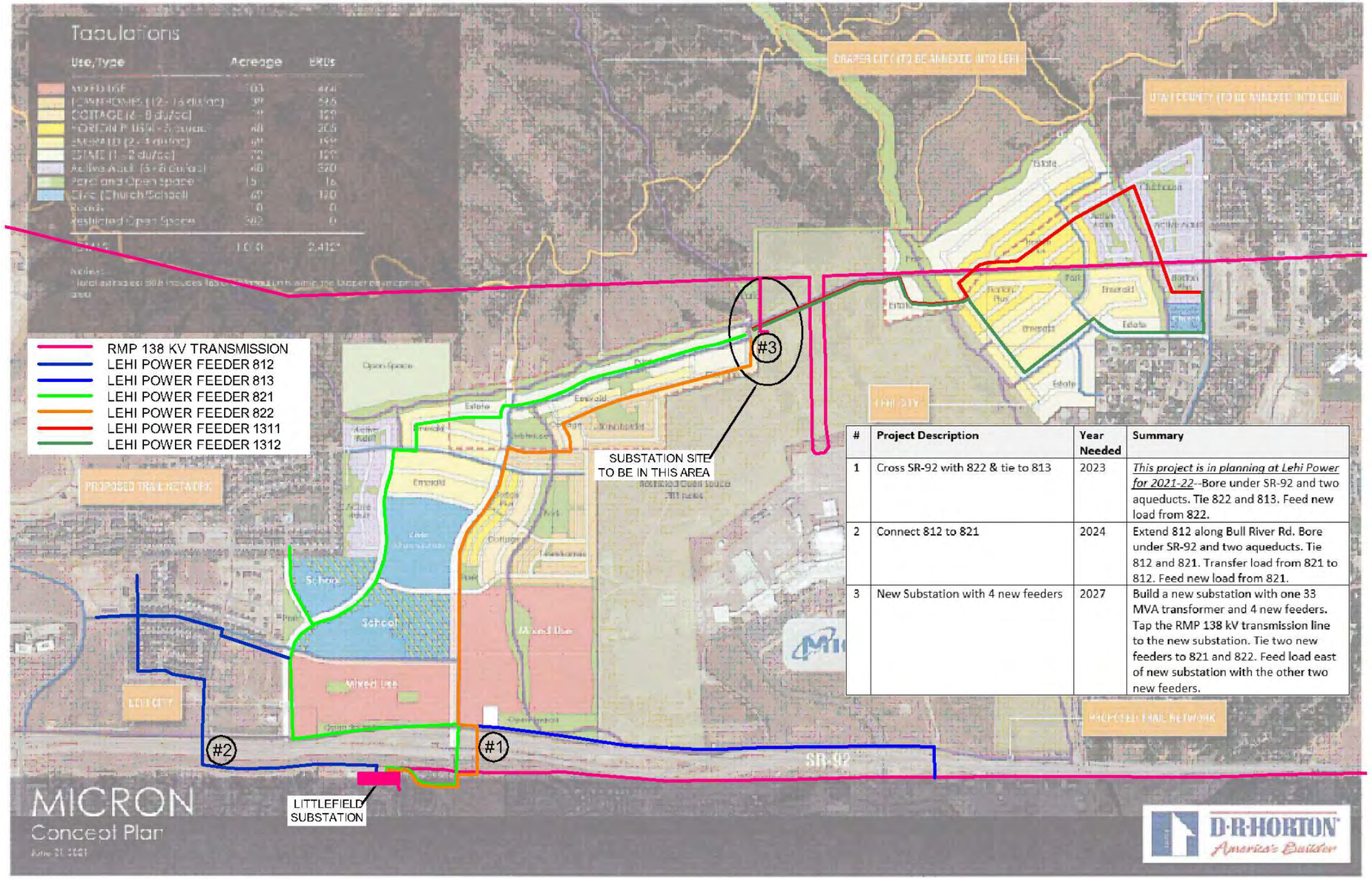


Figure 3. New Substation and Feeders Required at Full Buildout



#	Project Description	Year Needed	Summary
1	Cross SR-92 with 822 & tie to 813	2023	*This project is in planning at Lehi Power for 2021-22*--Bore under SR-92 and two aqueducts. Tie 822 and 813. Feed new load from 822.
2	Connect 812 to 821	2024	Extend 812 along Bull River Rd. Bore under SR-92 and two aqueducts. Tie 812 and 821. Transfer load from 821 to 812. Feed new load from 821.
3	New Substation with 4 new feeders	2027	Build a new substation with one 33 MVA transformer and 4 new feeders. Tap the RMP 138 kV transmission line to the new substation. Tie two new feeders to 821 and 822. Feed load east of new substation with the other two new feeders.

Figure 4. Substation and Feeder Loading Analysis for Full Buildout

					Forecast with Micron Site Development on Littlefield Sub		Forecast with Micron Site Development on Littlefield Sub		Forecast with Micron Site Development on Littlefield Sub		Forecast with Micron Site Development on Littlefield Sub		Forecast with Micron Site Development on Littlefield Sub and New Sub		Forecast with Micron Site Development on Littlefield Sub and New Sub		Forecast with Micron Site Development on Littlefield Sub and New Sub	
					2023		2024		2025		2026		2027		2028		2029	
Substation	**Transformer**	**Feeder**	**100% Capacity***	**Units**	**Load**	**Capacity Utilization (%)**	**Load**	**Capacity Utilization (%)**	**Load**	**Capacity Utilization (%)**	**Load**	**Capacity Utilization (%)**	**Load**	**Capacity Utilization (%)**	**Load**	**Capacity Utilization (%)**	**Load**	**Capacity Utilization (%)**
Littlefield	**T1**		33	MVA	14.74	45%	15.24	46%	15.5	47%	15.78	48%	15.41	47%	15.7	48%	16	48%
		812	500	amps	172	34%	172	34%	172	34%	172	34%	172	34%	172	34%	172	34%
		813	500	amps	279	56%	286	57%	293	59%	300	60%	278	56%	286	57%	294	59%
Littlefield	**T2**		33	MVA	13.07	40%	15.05	46%	17.04	52%	19.04	58%	18.82	57%	19.27	58%	19.74	60%
		821	500	amps	228	46%	233	47%	238	48%	243	49%	188	38%	193	39%	199	40%
		822	500	amps	0	0%	73	15%	146	29%	219	44%	249	50%	249	50%	249	50%
New Micron Devel. Sub	**T1**		33	MVA									2.89	9%	4.47	14%	6.05	18%
		CB11	500	amps									61	12%	134	27%	207	41%
		CB12	500	amps									73	15%	73	15%	73	15%

* Lehi Power design criteria limits normal operating capacity of transformers and feeders to 60%

Skye Area Plan

SEWER SECTION

July 18, 2022

STATE OF UTAH
BENJAMIN C.
TUCKETT
No. 9786726
07-18-2022
REGISTERED PROFESSIONAL ENGINEER

Prepared By:

LEI
ENGINEERS
SURVEYORS
PLANNERS

3302 N Main Street
Spanish Fork, UT 84660
(801) 798-0555

Skye

Sewer

Design Criteria:

Minimum Pipe Size: 8”

Minimum Slope: 0.34%

Design Flow:

Residential	100 gallons per person per day (UT R317-3-2.2.B.1) 3.8 capita / Dwelling Unit
Mixed Use	794 ERUs allocated with Land Use Plan 3.8 capita / ERU 100 gpd / capita
Civic	29 ERUs allocated with Land Use 3.8 capita / ERU 100 gpd / capita
School	24 ERUs allocated with Land Use Plan 3.8 capita / ERU 100 gpd / capita
Peak Factor	3.0

Summary of Results (Project Sizes):

Design Flow (West A):	**Flow:**	**Pipe Size Req’d:**
Pipe 1	16 gpm (peak)	8” @ 0.34%
Pipe 2	675 gpm (peak)	8” @ 1.56% or 10” @ 0.48%
Pipe 3	694 gpm (peak)	8” @ 1.65% or 10” @ 0.50%
Pipe 4	732 gpm (peak)	8” @ 1.83% or 10” @ 0.56%
Pipe 5	798 gpm (peak)	8” @ 2.17% or 10” @ 0.66%.
Pipe 6	1,081 gpm (peak)	8” @ 3.98% or 10” @ 1.22%
Pipe 7	1,093 gpm (peak)	8” @ 4.07% or 10” @ 1.24%
Pipe 8	1,428 gpm (peak)	18” @ 0.12%
Pipe 9	30 gpm (peak)	8” @ 0.34%
Pipe 10	76 gpm (peak)	10” @ 0.25%
Pipe 11	442 gpm (peak)	8” @ 0.67%
Pipe 12	525 gpm (peak)	12” @ 0.20%
Pipe 13	2,135 gpm (peak)	18” @ 0.21%
Total Flow West Side A	**2,135 gpm (peak)**	

Design Flow (East B):	Flow:	Pipe Size Req'd:
Pipe 14	110 gpm (peak)	8" @ 0.34%
Pipe 15	134 gpm (peak)	8" @ 0.34%
Pipe 16	135 gpm (peak)	8" @ 0.34%
Pipe 17	49 gpm (peak)	8" @ 0.34%
Pipe 18	43 gpm (peak)	8" @ 0.34%
Pipe 19	83 gpm (peak)	8" @ 0.34%
Pipe 20	143 gpm (peak)	8" @ 0.34%
Pipe 21	62 gpm (peak)	8" @ 0.34%
Pipe 22	104 gpm (peak)	8" @ 0.34%
Pipe 23	321 gpm (peak)	8" @ 0.37%
Pipe 24	473 gpm (peak)	8" @ 0.77%
Total Flow East Side B	**473 gpm (peak)**	

See Appendix A for an exhibit showing each pipe location and Appendix B for a detailed breakdown of sewer flows and pipe sizing.

Allowable Flows:

West Side:
The original Micron area plan called for an allowable discharge of 1,851 gallons per minute (gpm) into the existing sewer system in 500 W, as well as 62 gpm into the existing outfall near 600 E. Based on recent monitoring of the existing 600 E outfall, it was found that capacity there is lower than expected. The city has requested to route all discharge from the west side into the existing 500 W outfall. The overall total projected flow into this outfall is expected to be 1,897 gpm. For future planning purposes, the 500 W trunkline was sized to accommodate flows from an additional 300 ERU's above the Skye area plan. This increases the total discharge into that line to 2,135 gpm.

East Side:
The maximum allowable flow on the east side of Skye was determined based on an agreement between Lehi City and the Timpanogos Special Service District (TSSD). This agreement states that a maximum average flow of 227,000 gallons per day (GPD) is allowed to flow into the existing sewer system. Using a peaking factor of 3, this converts to approximately 473 gpm. The new area plan proposes that 473 gpm will flow into the system.

Methodology:

All pipes were designed according to the Utah administrative Rules as listed below:

R317-3-2. Sewers.

2.1. General. Construction of a new sewer system project may not begin unless the applicant has submitted an engineering report detailing the design, and construction plans to the executive secretary for review and approval evidenced by a construction permit. The executive secretary will not normally review construction plans for extensions of the existing sewer systems to new areas or replacement of sanitary sewers in the existing sewer systems unless requested or required by state or federal funding programs. Rain water from roofs, streets, and other areas, and ground water from foundation drains must not be allowed to enter the sewer system through planning, design and construction quality assurance and control measures.

2.2. Basis of Design

A. Planning Period. Sewers should be designed for the estimated ultimate tributary population or the 50-year planning period, whichever requires a larger capacity. The executive secretary may approve the design for reduced capacities provided the capacity of the system can be readily increased when required. The maximum anticipated capacity required by institutions, industrial parks, etc. must be considered in the design.

B. Sewer Capacity. The required sewer capacity shall be determined on the basis of maximum hourly domestic sewage flow; additional maximum flow from industrial plants; inflow; ground water infiltration; potential for sulfide generation; topography of area; location of sewage treatment plant; depth of excavation; and pumping requirements.

1. Per Capita Flow. New sewer systems shall be designed on the basis of an annual average daily rate of flow of 100 gallons per capita per day (0.38 cubic meter per capita per day) unless there are data to indicate otherwise. The per capita rate of flow includes an allowance for infiltration/inflow. The per capita rate of flow may be higher than 100 gallons per day (0.38 cubic meter per day) if there is a probability of large amounts of infiltration/inflow entering the system.

2. Design Flow

a. Laterals and collector sewers shall be designed for 400 gallons per capita per day (1.51 cubic meters per capita per day).

b. Interceptors and outfall sewers shall be designed for 250 gallons per capita per day (0.95 cubic meter per capita per day), or rates of flow established from an approved infiltration/inflow study.

c. The executive secretary will consider other rates of flow for the design if such basis is justified on the basis of supporting documentation.

C. Design Calculations. Detailed computations, such as the basis of design and hydraulic calculations showing depth of flow, velocity, water surface profiles, and gradients shall be submitted with plans.

2.3. Design and Construction Details

A. Minimum Size

1. No gravity sewer shall be of less than eight inches (20 centimeters) in diameter.
2. A 6-inch (15 centimeters) diameter pipe may be permitted when the sewer is serving only one connection, or if the applicant justifies the need for such diameter on the basis of supporting documentation.

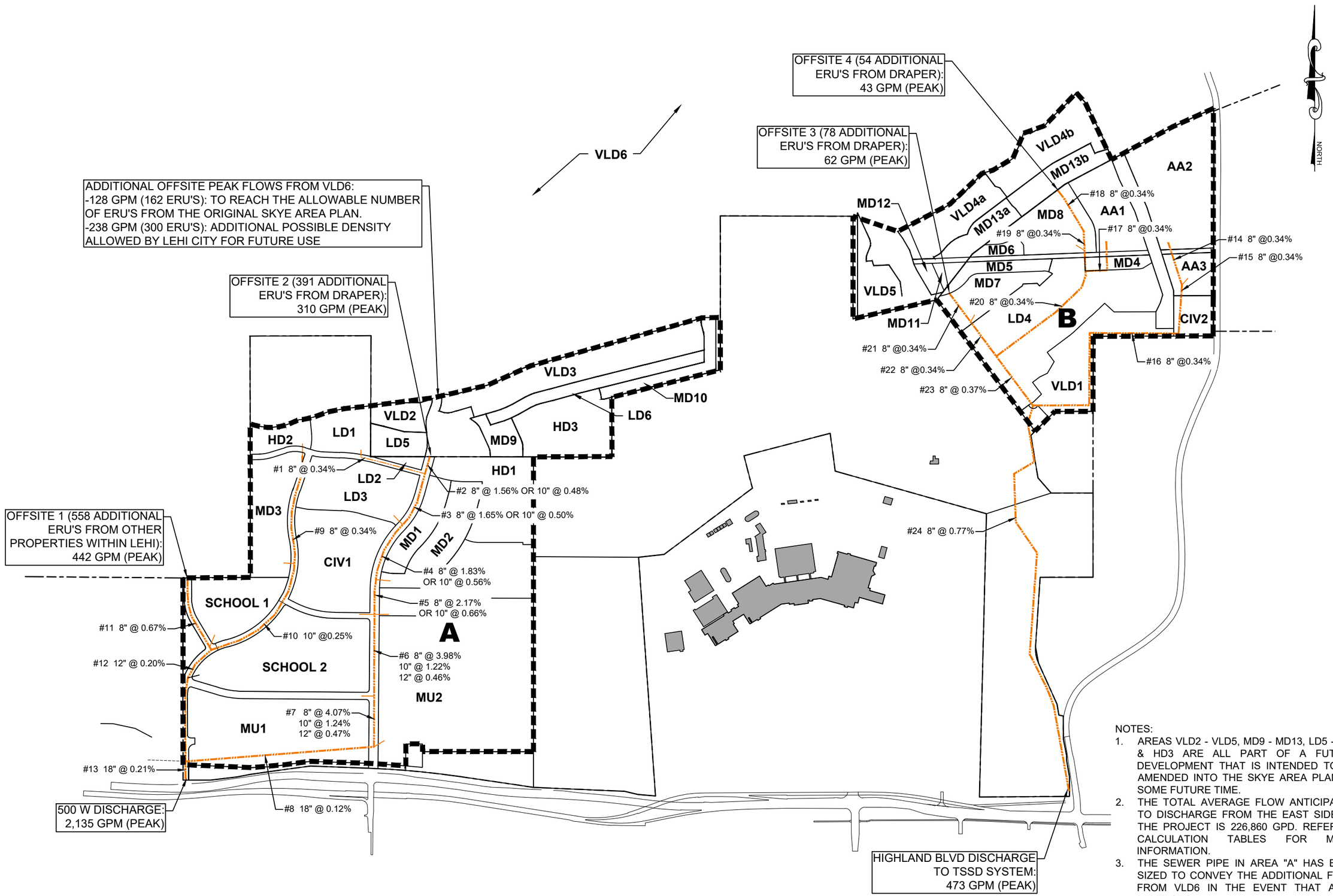
B. Depth. Sewers should be sufficiently deep to receive sewage from basements and to prevent freezing. Insulation shall be provided for sewers that cannot be placed at a depth sufficient to prevent freezing.

C. Odor and Sulfide Generation. The design shall incorporate features to control and mitigate odor and sulfide generation in sewers. Such features may include steeper slope to achieve higher velocity, reaeration through induced turbulence, etc.

D. Slope

1. The pipe diameter and slope shall be selected to obtain velocities to minimize settling problems.
2. All sewers shall be designed and constructed to give mean velocities of not less than 2 feet per second (0.61 meter per second), when flowing full, based on Manning's formula using an n value of 0.013.
3. Sewers shall be laid with uniform slope between manholes.
4. Table R317-3-2.3(D)(4) shows the minimum slopes which shall be provided; however, slopes greater than these are desirable.

Appendix A: Pipe Location Exhibit



NOTES:

1. AREAS VLD2 - VLD5, MD9 - MD13, LD5 - LD6 & HD3 ARE ALL PART OF A FUTURE DEVELOPMENT THAT IS INTENDED TO BE AMENDED INTO THE SKYE AREA PLAN AT SOME FUTURE TIME.
2. THE TOTAL AVERAGE FLOW ANTICIPATED TO DISCHARGE FROM THE EAST SIDE OF THE PROJECT IS 226,860 GPD. REFER TO CALCULATION TABLES FOR MORE INFORMATION.
3. THE SEWER PIPE IN AREA "A" HAS BEEN SIZED TO CONVEY THE ADDITIONAL FLOW FROM VLD6 IN THE EVENT THAT AREA DEVELOPS.

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333

SKYE
LEHI, UTAH

SEWER PLAN

REVISIONS
1 -
2 -
3 -
4 -
5 -

LEI PROJECT #: 2020-0067
DRAWN BY: RWH
DESIGNED BY: BCT
SCALE: 1" = 1000'
DATE: 07/18/2022
SHEET A

Appendix B: Detailed Pipe Flows and Pipe Sizing

SKYE AREA PLAN

Sewer Flows - West Side A

Land Use	Area (acres)	Residential Units or ERU's (units)	Capita/ERU (capita/unit)	Capita (capita)	Flow/Capita (gpd/capita)	Average Flow (gpd)	Peak Factor	Peak Hourly Flow (gpd)	Peak Hourly Flow (gpm)
Mixed Use	103.02	794	3.8	3,017	100	301,700	3.0	905,100	629
Civic	22.59	27	3.8	103	100	10,300	3.0	30,900	21
LD	24.24	72	3.8	273	100	27,300	3.0	81,900	57
HD	20.72	228	3.8	866	100	86,600	3.0	259,800	180
MD	25.17	86	3.8	326	100	32,600	3.0	97,800	68
MD	11.42	55	3.8	209	100	20,900	3.0	62,700	44
School	42.98	24	3.8	91	100	9,100	3.0	27,300	19
Offsite 1	290.18	558	3.8	2,120	100	212,040	3.0	636,120	442
Offsite 2	66.37	391	3.8	1,486	100	148,580	3.0	445,740	310
VLD6 (Additional Offsite)	N/A	462	3.8	1,756	100	175,560	3.0	526,680	366
Total West Side A		**2,697**		**10,247**		**1,024,680**		**3,074,040**	**2,135**

Sewer Flows - East Side B

Land Use	Area (acres)	Residential Units or ERU's (units)	Capita/ERU (capita/unit)	Capita (capita)	Flow/Capita (gpd/capita)	Average Flow (gpd)	Peak Factor	Peak Hourly Flow (gpd)	Peak Hourly Flow (gpm)
AA	41.03	236	3.8	897	100	89,700	3.0	269,100	187
Civic	4.44	2	3.8	8	100	800	3.0	2,400	2
LD	35.72	90	3.8	342	100	34,200	3.0	102,600	71
VLD	15.71	20	3.8	76	100	7,600	3.0	22,800	16
MD	28.20	117	3.8	444	100	44,400	3.0	133,200	93
Offsite 3	33.75	78	3.8	296	100	29,640	3.0	88,920	62
Offsite 4	19.59	54	3.8	205	100	20,520	3.0	61,560	43
Total East Side C		**597**		**2,269**		**226,860**		**680,580**	**473**

Sewer Flows - Offsite Detailed

Offsite Area	Land Use	Area (acres)	Residential Units or ERU's (units)	Capita/ERU (capita/unit)	Capita (capita)	Flow/Capita (gpd/capita)	Average Flow (gpd)	Peak Factor	Peak Hourly Flow (gpd)	Peak Hourly Flow (gpm)
Offsite 1	Canyon Hills (Existing)	78.67	244	3.8	927	100	92,720	3.0	278,160	193
	Peck Property (Lehi - 1.5 units/ac)	58.89	88	3.8	334	100	33,440	3.0	100,320	70
	Entrata (Draper - 1.5 units/ac))	149.28	224	3.8	851	100	85,120	3.0	255,360	177
	Canyon Hills Church	3.34	2	3.8	8	100	760	3.0	2,280	2
Total Offsite 1			**558**		**2,120**		**212,040**		**636,120**	**442**
Offsite 2	VLD2	4.22	10	3.8	38	100	3,800	3.0	11,400	8
	VLD3	20.60	50	3.8	190	100	19,000	3.0	57,000	40
	LD5	4.27	16	3.8	61	100	6,080	3.0	18,240	13
	LD6	7.42	46	3.8	175	100	17,480	3.0	52,440	36
	HD3	15.06	241	3.8	916	100	91,580	3.0	274,740	191
	Clubhouse	5.81	10	3.8	38	100	3,800	3.0	11,400	8
	MD9	3.70	10	3.8	38	100	3,800	3.0	11,400	8
	MD10	5.28	8	3.8	30	100	3,040	3.0	9,120	6
Total Offsite 2			**391**		**1,486**		**148,580**		**445,740**	**310**
Offsite 3	VLD4a	10.43	30	3.8	114	100	11,400	3.0	34,200	24
	VLD5	6.81	16	3.8	61	100	6,080	3.0	18,240	13
	MD11	1.95	6	3.8	23	100	2,280	3.0	6,840	5
	MD12	1.70	4	3.8	15	100	1,520	3.0	4,560	3
	MD13a	5.08	22	3.8	84	100	8,360	3.0	25,080	17
Total Offsite 3			**78**		**296**		**29,640**		**88,920**	**62**
Offsite 4	VLD4b	12.56	31	3.8	118	100	11,780	3.0	35,340	25
	MD13b	7.03	23	3.8	87	100	8,740	3.0	26,220	18
Total Offsite 4			**54**		**205**		**20,520**		**61,560**	**43**
Additional Offsite	VLD6 - To meet A.P. allowable flows	N/A	162	3.8	616	100	61,560	3	184,680	128
	VLD6 - Extra ERU's allowed for future planning	N/A	300	3.8	1,140	100	114,000	3	342,000	238
Total Additional Offsite			**462**		**1,756**		**175,560**		**526,680**	**366**

Skye Area Plan
Sewer Pipe Sizing

Pipe ID.	Contributing Area (ac)	Peak Hourly Flow (gpm)	Peak Hourly Flow (cfs)	Pipe Dia. (inches)	Min Slope (%)	Qpipe (cfs)	Velocity (fps)	Pipe Check
1	LD1	16	0.04	8	0.34	0.70	2.02	OK
2	Offsite 2, VLD6	675	1.50	8	1.56	1.51	4.32	OK
3	Offsite 2, VLD6, LD1, LD2	694	1.55	8	1.65	1.55	4.45	OK
4	Offsite 2, VLD6, LD1, LD2, LD3	732	1.63	8	1.83	1.63	4.68	OK
5	Offsite 2, VLD6, LD1, LD2, LD3, MD1, MD2	798	1.78	8	2.17	1.78	5.10	OK
6	Offsite 2, VLD6, LD1, LD2, LD3, MD1, MD2, HD1, Civ1, MU2 (partial)	1081	2.41	8	3.98	2.41	6.91	OK
7	Offsite 2, VLD6, LD1, LD2, LD3, MD1, MD2, HD1, Civ1, MU2 (partial), School 2	1093	2.44	8	4.07	2.44	6.98	OK
8	Offsite 2, VLD6, LD1, LD2, LD3, MD1, MD2, HD1, Civ1, MU2, School 2	1428	3.18	18	0.12	3.64	2.06	OK
9	HD2	30	0.07	8	0.34	0.70	2.02	OK
10	HD2, MD3	76	0.17	10	0.25	1.09	2.01	OK
11	Offsite 1	442	0.98	8	0.67	0.99	2.83	OK
12	HD2, MD3, Offsite 1, School 1	525	1.17	12	0.20	1.59	2.03	OK
13	Offsite 2, VLD6, LD1, LD2, LD3, MD1, MD2, HD1, Civ1, MU2, School 2, HD2, MD3, Offsite 1, School 1, MU1	**2135**	4.76	18	0.21	4.81	2.72	OK
14	AA2/CH	110	0.25	8	0.34	0.70	2.02	OK
15	AA2/CH, AA3	134	0.30	8	0.34	0.70	2.02	OK
16	AA2/CH, AA3, Civ2	135	0.30	8	0.34	0.70	2.02	OK
17	AA1	49	0.11	8	0.34	0.70	2.02	OK
18	Offsite 4	43	0.10	8	0.34	0.70	2.02	OK
19	Offsite 4, MD8, MD6	83	0.19	8	0.34	0.70	2.02	OK
20	Offsite 4, MD8, MD4, AA1	143	0.32	8	0.34	0.70	2.02	OK
21	Offsite 3	62	0.14	8	0.34	0.70	2.02	OK
22	Offsite 3, MD7, MD5	104	0.23	8	0.34	0.70	2.02	OK
23	Offsite 3, MD7, MD5, Offsite 4, MD8, MD4, AA1, LD4/CH	321	0.72	8	0.37	0.73	2.11	OK
24	Offsite 3, MD7, MD5, Offsite 4, MD8, MD4, AA1, LD4/CH, AA2/CH, AA3, Civ2, VLD1	**473**	1.05	8	0.77	1.06	3.04	OK

Skye Area Plan

STORM DRAIN SECTION

July 12, 2022

Prepared By:

ENGINEERS
SURVEYORS
PLANNERS

3302 N Main Street
Spanish Fork, UT 84660
(801) 798-0555

Design Criteria:	Area west of Texas Instruments Facility – Maximum allowable discharge into existing storm system in SR-92 to be 196 cfs (See exhibits A and B in Appendix B) Area east of Texas Instruments Facility – *Pond 2*: Maximum allowable discharge rate for native ground: 0.1 cfs/acre Maximum allowable discharge rate for developed ground: 0.2 cfs/acre *Pond 3*: Maximum allowable discharge into existing storm system to be 72.65 cfs per historic rates as indicated by existing pipe Infiltration – Assumed through bottom of ponds as recommended by geotechnical report. Specific pond infiltration rates can be found in Table 2, and the infiltration report is provided in Appendix C. All ponds were sized to handle the runoff from the 100-year 24-hour storm and will be designed to retain the 80th percentile storm to comply with local and state MS4 requirements. All trunklines and pipes were sized to accommodate the runoff from a 10-year storm. Pipes and inlets that discharge to the detention ponds were sized for the 100-year storm to ensure that all storm runoff is captured and conveyed to the ponds.
Minimum pipe size: Pipe Type:	12” Pipe type per Lehi City design standards.
Summary of Results:	Three ponds will be required to detain the runoff flows from the project. Two of the three ponds are proposed, and one will need to be expanded to fit the projected runoff. See Appendix E for exhibits showing the locations of all ponds, pipes, and contributing areas. • Pond 1 is an existing pond that will need to be resized to detain the excess runoff from the new development. • Ponds 2 and 3 are proposed ponds to be placed within the project. Pond 2 will discharge into the existing Maple Hollow drainage; Pond 3 will discharge into an existing pipeline constructed for upstream historic flows Seven other detention ponds are currently located on or near the existing Texas Instruments property. • Pond A will be removed with the new development, and all discharge from the contributing area will be caught in pipes and directed through the project to be detained in Pond 1. • Ponds B-D will remain undisturbed. It is assumed that they have been constructed with sufficient capacity to handle all flows from the Texas Instruments facility as well as any applicable upstream flows. • Pond E is an existing pond located in Canyon Hills. The discharge used in this study is the design discharge from the subdivision, which includes pass-through flows from the upper areas labeled as Offsite 1 and Offsite 2. • Pond F is an existing detention pond that will be removed with the new development. A portion of the flows going to this pond will be conveyed directly to the existing system at 500 West. • Pond G is an existing detention pond that will be removed with the new development. All flows previously discharging to this pond will be conveyed to and detained in Pond 1.

Methodology:

All basin and runoff modeling was done with the Autodesk Storm and Sanitary Analysis software (SSA). The model was run using the Soil Conservation Service (SCS) Technical Release-55 (TR-55) method. Subbasins were entered into the model based on each land use "pod". Each subbasin in the model was assigned a curve number and time of concentration based on soil type, slope, and proposed land use. Table 1 on the following page provides a summary of each subbasin and its corresponding area, curve number, and time of concentration. Refer to the exhibits in Appendix E for the location of all subbasins and pipes.

Curve Numbers: The TR-55 method uses curve numbers (CN) to represent the amount of rainfall that will runoff a particular surface. The curve number is based on the ground cover as well as the hydrologic soil classification. Using local hydrologic soil groups published by the Natural Resources Conservation Service (NRCS), as well as recommended curve numbers for land use from *Stormwater Conveyance Modeling and Design* from Haestad and Durrans, each subbasin was assigned a composite curve number for use in calculating runoff. Refer to Appendix D for the NRCS soil map and CN values.

Time of Concentration: The time of concentration is the time it takes for the rainfall to travel from the hydraulically most distant point of each subbasin to the bottom, or outfall, of that subbasin. The time of concentration was calculated based on the methodology outlined in TR-55 published by the United States Department of Agriculture (USDA), dated June 1986. Based on this methodology, Manning's Kinematic Equation was used for the first 300 feet of overland flow to find the sheet flow time. For the next section of flow, which is represented by shallow concentrated flow, the velocity of the flow was determined using the equation $v = 16.1345 * \sqrt{S}$ for offsite/open space areas and $v = 20.3282 * \sqrt{S}$ for developed areas. The third and final section of flow is the open channel flow once the runoff enters and is conveyed by the storm drain pipes or channels. For this section, an assumed velocity of 3 feet per second (fps) was used to estimate the travel time. Once all these separate times were calculated they were added up as the total time of concentration. For smaller subbasins, a minimum time of concentration of 6 minutes was used per guidelines within the SCS method.

Design Rainfall and Storm Depth: The storm depth is necessary to estimate the total amount of rain that will fall during a specific storm event. Based on the TR-55 methodology the storm was modeled using the SCS type 2 storm event. All three new detention ponds were sized to accommodate the 24-hour 100-year storm. Rainfall depths were chosen based on NOAA Atlas 14, Volume 1, Version 5, and are located in Appendix A.

Subbasin Discharge: The peak discharge from each subbasin was calculated within the model as described above using the SCS method. Certain subbasins were assumed to detain runoff onsite and discharge into the proposed system at a specified rate. School 1 and School 2 have existing detention systems onsite. Therefore, all of School 1 and the west side of School 2 were modeled to discharge into the system at a rate of 0.2 cfs/acre. The discharge from the east side of the School 2 site is being caught in existing underground retention. Additionally, all mixed use and civic areas will be required to detain storm water onsite at a rate of 0.2 cfs/acre. Offsite 1 and Offsite 2 flow into the existing Canyon Hills stormwater system, which discharges at a controlled rate of approximately 27.6 cfs based on the original design of that system.

Table 1: Summary of Subbasins with Associated Areas, Curve Numbers, and Times of Concentration

Offsite Areas and Pods			
Subbasin	**Area (ac)**	**Curve Number**	**Tc (min)**
AA1	11.17	89.89	20.08
AA2	21.54	89.27	28.92
AA3	5.31	89.43	22.80
Civic 1	22.58	85.81	6.84
Civic 2	4.47	86.88	6.00
Clubhouse	4.77	61.00	6.00
HD1	4.42	84.08	14.38
HD2	3.02	89.00	17.51
HD3	10.87	82.00	18.55
HD4	15.06	85.04	26.27
LD1	7.08	74.44	24.29
LD2	1.01	72.00	23.88
LD3	16.14	77.79	27.55
LD4	23.96	80.69	33.00
LD5	9.11	81.00	44.96
LD6	4.48	72.00	21.72
LD7	20.79	72.00	30.19
LD8	15.44	72.18	47.96
LD9	13.52	72.28	31.05
MD1	14.20	79.30	22.33
MD2	6.76	82.76	21.75
MD3	10.55	85.35	22.76
MD4	8.28	80.26	26.53
MD5	3.86	76.63	25.10
MD6	1.76	75.03	18.23
MD7	11.82	80.88	31.56
MD8	2.44	85.00	28.08
MD9	3.64	82.00	15.94
MD10	7.40	82.00	44.22
MD11	5.28	75.00	41.62
MD12	9.36	75.00	33.76
MD13	5.79	75.13	24.02
Mixed Use 1	17.87	92.67	6.39
Mixed Use 2	15.91	93.87	6.00
Mixed Use 3	19.33	87.33	14.51
Mixed Use 4	30.31	93.56	10.87
Mixed Used 5	33.65	92.13	8.80

Subbasin	Area (ac)	Curve Number	Tc (min)
Offsite 1	162.20	59.97	41.72
Offsite 2	94.34	64.11	66.48
Offsite 3	165.79	72.08	37.00
Offsite 4	131.80	78.39	35.39
Offsite 5	30.13	70.24	21.12
Open Space 1	0.28	61.00	6.54
Open Space 2	2.25	73.67	6.76
Open Space 3	3.71	72.50	21.19
Open Space 4	9.08	70.23	18.68
Open Space 5	1.65	65.21	13.96
Open Space 6	7.36	69.29	24.60
Open Space 7	1.07	74.00	6.00
Open Space 8	0.74	70.90	6.00
Open Space 9	0.68	61.00	13.39
Open Space 10	0.72	61.00	11.15
Park 1	1.65	61.00	7.67
Park 2	2.62	70.38	28.99
Park 3	3.10	74.00	33.93
Road - Left 1	0.87	97.00	6.00
Road - Left 2	2.67	97.00	7.43
Road - Left 3	3.93	97.00	7.48
Road - Left 4	2.41	97.00	8.17
Road - North	1.61	97.00	6.00
Road - Right 1a	1.67	97.00	7.60
Road - Right 1b	0.89	97.00	6.00
Road - Right 2	4.47	97.00	10.21
Road - Right 3	3.54	97.00	10.94
Road - Right 4	5.58	97.00	16.93
Restricted Open Space	76.81	75.54	58.98
School 1	12.71	80.95	6.00
School 2	14.66	80.29	7.88
VLD1	10.53	80.00	47.18
VLD2	5.20	80.00	43.44
VLD3	4.43	72.68	25.17
VLD4	7.58	70.29	20.51

System Discharges:

West Side

According to a study done by MW Brown, the Lehi City allowable discharge for the area west of the Texas Instruments facility, including adjacent properties, is **196.0 cfs** (See Drainage Agreement Exhibit B – Allowable Flow Rate in Appendix B). The SR-92 storm drain trunk line was designed to handle the 196.0 cfs peak offsite discharge from the Skye property and surrounding areas. The model in this study has been developed to size the detention pond with the appropriate discharge rate and provide a proposed drainage plan that will not exceed the 196.0 cfs of offsite drainage. Pond 1 and the existing outfall at 500 West will make up the west discharge of Skye. Pond 1 will detain flows and discharge into the existing system at 66.6 cfs. The existing detention pond near 500 W will be removed and the 100-year discharge from 500 W will flow undetained into the existing system at a rate of 67.48 cfs, still under the outfall capacity of 76.28 cfs as shown in the drainage agreement in Appendix B. The new drainage concept is intended to utilize the existing pipes in 500 W as much as possible to route the flows to the existing outfall in SR-92. Part of the existing pipe system routes drainage across the street into the pond through a series of smaller pipes. With the removal of the pond, new 36" pipes will need to be installed to extend the system past the pond and into the outfall in SR 92. The existing orifice near the pond will be removed and all pipes leading to the pond and running through the pond will be abandoned or removed as well. The combined discharge of Pond 1 and the 500 W outfall is 134.08 cfs, well under the allowed 196.0 cfs discharge. Refer to Table 2 for a summary of discharges from each pond. The Utah Department of Transportation (UDOT) has directed that the maximum allowable discharge into SR-92 is 0.2 cfs/acre. The 134.08 cfs discharge outlined above represents a discharge rate of 0.15 cfs/acre, well below the 0.2 cfs/acre allowed.

East Side

Pond 2

The east side drainage to Pond 2 will be restricted in a similar way the original area plan specified – 0.1 cfs/acre and 0.2 cfs/acre for native ground and developed ground, respectively. Pond 2 will discharge into the existing Maple Hollow drainage that sits to the west. See Table 2 below for a summary of each discharge from the project.

Pond 3

There is an existing storm drain line that captures historic drainage from the east side of the Skye area plan, as well as native areas above. It sits just to the north of the Dry Creek Highlands subdivision. Pond 3 will capture the runoff from the upstream area and discharge into this existing storm drain line at or below the existing pipe capacity (72.65 cfs), which is assumed to be the historic flow. Discharge from Pond 3 will not exceed this capacity and will remain consistent with historic flows. See Table 2 below for a summary of each discharge from the project.

Table 2: Discharge Information

Pond	Contributing Area (acre)	Infiltration Rate (in/hr)	Peak Inflow (cfs)	Required Volume (cf)	Required Volume (acre-ft)	100-Year Peak Detained Discharge (cfs)	Allowable Discharge (cfs)
Pond 1	515.12	15.00	195.60	257,646	5.91	66.6	
500 W Discharge	366.37	-	67.48	-	-	67.48 (undetained)	
Total West Discharge	**881.46**		**263.09**			**134.08**	**196**
Pond 2	129.12[1]	10.8	86.53	109,869	2.52	25.82	25.82
Pond 3	191.06	15.00	131.78	121,259	2.78	72.63	72.65[2]

Notes:

1. *Pond 2 has no undeveloped contributing areas.*
2. *Discharge of Pond 3 is capped at 72.65 cfs per existing pipe capacity*

Low Impact Development (LID) Requirement:

The storm drain system for the new development will follow local & state requirements for the MS4 program. This will include designing all detention ponds with the ability to retain the 80th percentile volume while releasing historic discharge into the existing system. Any commercial sites within the development that will need to detain onsite will be required to retain the 80th percentile storm and will be encouraged to implement other LID practices.

Pond Sizing:

The sizing of the ponds for the development depended largely on the maximum allowable discharges mentioned above, as well as infiltration into the ground. The geotechnical report provided infiltration rates near the areas of Ponds 1, 2, and 3. A factor of safety of 2.5 was applied to the rates at Pond 2 and 3 for a more conservative estimate. The infiltration rate for Pond 1 was exceptionally high (240 in/hr), so a factor of safety of 16 was used to provide a more reasonable rate consistent with the other ponds. These rates were used in calculating ground infiltration through the bottom of the pond. Refer to the infiltration test results in Appendix C for more details. All ponds are designed to detain the runoff from the 100-year 24-hour storm and to discharge within the maximum allowable discharge requirements presented above.

Pipe and Channel Sizing:

All pipes were sized for the 10-year peak flows using the Manning's Equation within the SSA model. According to this method, pipe size is based on peak inflow from contributing areas, the approximate slope of the project based on existing contours, and an assumed manning's n value of 0.013. Table 3 below shows all expected pipe sizing within the model. See Appendix E for locations of each pipe.

All channels shown in the model are existing channels that will be used to convey water to and from detention ponds. Dimensions of the existing channels were modeled to ensure that they had sufficient capacity for the flows. See Table 4 below for channel sizing and Appendix F for channel cross section designs.

Debris Basins:

Debris basins will be required above the project to prevent debris from coming into the development during flood events. These basins were sized and designed in collaboration with GeoStrata geotechnical engineers to capture all debris and storm runoff. The debris basins will be owned and maintained by the HOA. An exhibit from the geotechnical report showing the proposed locations of the debris basins can be seen in Appendix G.

Conclusion:

An SSA model was developed to size detention basins and trunk lines for the Skye development. One existing pond will be upsized, and two ponds will be added on the east side. All discharges from the project will remain under the allowable rates.

Table 3: Pipe Lengths, Slopes, Sizes, and Flows

Pipe Number	Length (ft)	Average Slope (%)	Pipe Diameter (inches)	Peak Flow (cfs)	Design Flow Capacity (cfs)
100	539.00	9.28	12	2.79	10.29
102	650.09	1.08	12	2.78	3.70
103	380.00	10.53	12	3.82	11.56
106*	714.00	5.46	24	33.50	52.86
109	450.00	6.67	12	2.04	9.20
110	646.00	3.87	18	10.43	20.66
113	480.00	3.13	15	8.15	11.42
114	1072.00	0.93	18	8.68	10.15
115	482.00	8.30	12	0.97	10.26
116*	1041.00	0.67	36	54.62	55.40
117*	1800.00	5.67	36	157.19	158.82
118	155.00	3.23	12	6.16	6.40
119	559.85	7.14	12	6.11	9.52
122	863.04	7.30	12	7.81	9.24
123*	1271.00	2.68	24	27.58	37.03
124*	232.93	6.87	36	81.85	174.82
125	803.00	8.09	12	0.54	10.14
127	190.42	7.88	12	3.04	10.00
128	1266.67	1.03	12	2.94	3.61
130	542.36	0.92	12	2.77	3.42
131	301.46	9.95	12	0.27	11.24
132	373.19	10.72	12	0.66	11.66
134	351.91	15.63	12	0.38	14.09
135	663.03	6.03	12	0.32	8.75
139*	175.64	6.26	30	67.48	102.62
141	750.00	3.60	12	1.10	5.86
142	130.00	0.77	12	1.64	3.12
145	500.24	7.00	12	6.31	9.42
146	848.96	7.30	15	13.62	17.32
147	1329.82	9.40	12	2.37	10.92
148	961.97	4.16	12	6.77	9.44
149	327.27	7.64	12	3.69	9.85
150*	677.46	2.07	24	31.45	32.55
152	939.17	6.50	15	14.63	16.46
154	272.00	16.52	12	0.11	12.55
65	457.36	6.34	15	13.91	16.27
81	260.00	5.38	12	6.54	6.99
90	877.00	7.53	12	7.94	9.77
92	647.00	6.49	12	6.12	9.08
93	866.00	8.08	12	1.42	10.13

*Pipes 106, 116, 117, 123, 124, 139, 150 were sized to capture and convey the 100-year storm

Table 4: Channel Dimensions and Flows

Channel Segment	Length (ft)	Average Slope (%)	Channel Height (ft)	Channel Width (ft)	Peak Flow (cfs)	Design Flow Capacity (cfs)
143	460	4.35	1.5	55	115.17	234.29
144	250	7.60	1.0	50	121.03	143.30
153	1158	5.70	1.0	50	85.89	124.10

Appendix A: NOAA Rainfall Data

NOAA Atlas 14, Volume 1, Version 5
Location name: Lehi, Utah, US*
Coordinates: 40.4394, -111.8468
Elevation: 4973ft*
* source: Google Maps

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.130 (0.115–0.151)	0.165 (0.146–0.191)	0.227 (0.198–0.263)	0.283 (0.244–0.329)	0.371 (0.313–0.435)	0.454 (0.372–0.535)	0.549 (0.437–0.656)	0.661 (0.506–0.803)	0.842 (0.610–1.05)	1.01 (0.699–1.28)
10-min	0.198 (0.174–0.230)	0.252 (0.222–0.291)	0.345 (0.302–0.400)	0.431 (0.372–0.501)	0.565 (0.476–0.662)	0.691 (0.566–0.814)	0.835 (0.664–0.997)	1.01 (0.770–1.22)	1.28 (0.929–1.59)	1.53 (1.06–1.95)
15-min	0.246 (0.216–0.285)	0.312 (0.275–0.361)	0.428 (0.374–0.496)	0.534 (0.461–0.620)	0.701 (0.590–0.820)	0.856 (0.702–1.01)	1.04 (0.823–1.24)	1.25 (0.955–1.52)	1.59 (1.15–1.98)	1.90 (1.32–2.42)
30-min	0.331 (0.290–0.383)	0.420 (0.370–0.486)	0.576 (0.504–0.667)	0.719 (0.621–0.836)	0.943 (0.795–1.11)	1.15 (0.945–1.36)	1.39 (1.11–1.67)	1.68 (1.29–2.04)	2.14 (1.55–2.66)	2.56 (1.77–3.25)
60-min	0.410 (0.359–0.474)	0.519 (0.458–0.602)	0.713 (0.624–0.826)	0.890 (0.769–1.03)	1.17 (0.984–1.37)	1.43 (1.17–1.68)	1.73 (1.37–2.06)	2.08 (1.59–2.53)	2.65 (1.92–3.29)	3.16 (2.20–4.03)
2-hr	0.512 (0.464–0.580)	0.640 (0.576–0.723)	0.836 (0.748–0.945)	1.02 (0.902–1.16)	1.31 (1.13–1.50)	1.58 (1.33–1.82)	1.90 (1.55–2.22)	2.27 (1.78–2.70)	2.87 (2.14–3.51)	3.42 (2.44–4.28)
3-hr	0.595 (0.543–0.663)	0.736 (0.672–0.818)	0.931 (0.845–1.03)	1.11 (0.999–1.24)	1.39 (1.23–1.56)	1.64 (1.42–1.86)	1.95 (1.63–2.23)	2.31 (1.88–2.73)	2.90 (2.25–3.55)	3.44 (2.57–4.33)
6-hr	0.785 (0.728–0.854)	0.965 (0.892–1.05)	1.17 (1.08–1.28)	1.36 (1.25–1.49)	1.64 (1.48–1.79)	1.87 (1.66–2.06)	2.13 (1.86–2.38)	2.44 (2.09–2.77)	3.02 (2.50–3.58)	3.53 (2.84–4.37)
12-hr	1.01 (0.929–1.10)	1.23 (1.14–1.34)	1.49 (1.37–1.62)	1.71 (1.56–1.87)	2.02 (1.83–2.23)	2.28 (2.04–2.53)	2.56 (2.25–2.87)	2.87 (2.47–3.26)	3.35 (2.81–3.90)	3.75 (3.07–4.44)
24-hr	1.13 (1.05–1.21)	1.38 (1.29–1.49)	1.65 (1.54–1.77)	1.87 (1.75–2.01)	2.17 (2.02–2.33)	2.40 (2.23–2.57)	2.63 (2.44–2.90)	2.89 (2.64–3.30)	3.39 (2.91–3.94)	3.79 (3.10–4.48)
2-day	1.35 (1.26–1.45)	1.65 (1.55–1.77)	1.98 (1.85–2.11)	2.24 (2.09–2.39)	2.59 (2.42–2.77)	2.87 (2.66–3.06)	3.15 (2.90–3.36)	3.42 (3.14–3.67)	3.79 (3.45–4.08)	4.07 (3.68–4.53)
3-day	1.48 (1.37–1.59)	1.81 (1.68–1.95)	2.16 (2.01–2.33)	2.46 (2.29–2.64)	2.86 (2.65–3.08)	3.18 (2.93–3.42)	3.50 (3.21–3.77)	3.82 (3.49–4.13)	4.26 (3.85–4.62)	4.59 (4.13–5.07)
4-day	1.60 (1.48–1.73)	1.96 (1.82–2.13)	2.35 (2.18–2.54)	2.68 (2.48–2.89)	3.13 (2.89–3.38)	3.48 (3.20–3.77)	3.85 (3.52–4.17)	4.22 (3.84–4.58)	4.72 (4.25–5.15)	5.11 (4.57–5.61)
7-day	1.90 (1.76–2.07)	2.33 (2.16–2.53)	2.79 (2.58–3.02)	3.16 (2.92–3.42)	3.67 (3.38–3.97)	4.06 (3.73–4.40)	4.46 (4.08–4.83)	4.86 (4.43–5.28)	5.39 (4.87–5.88)	5.80 (5.20–6.35)
10-day	2.15 (1.99–2.32)	2.63 (2.44–2.84)	3.13 (2.90–3.37)	3.52 (3.27–3.80)	4.05 (3.74–4.36)	4.44 (4.09–4.78)	4.82 (4.44–5.20)	5.20 (4.77–5.62)	5.69 (5.18–6.17)	6.04 (5.48–6.57)
20-day	2.83 (2.62–3.06)	3.48 (3.22–3.75)	4.11 (3.81–4.43)	4.61 (4.26–4.95)	5.23 (4.83–5.62)	5.68 (5.24–6.11)	6.11 (5.63–6.57)	6.52 (6.00–7.02)	7.02 (6.44–7.59)	7.38 (6.74–7.99)
30-day	3.42 (3.17–3.68)	4.19 (3.88–4.51)	4.93 (4.58–5.31)	5.51 (5.11–5.93)	6.26 (5.79–6.73)	6.80 (6.28–7.32)	7.33 (6.75–7.90)	7.83 (7.19–8.46)	8.46 (7.73–9.16)	8.90 (8.11–9.67)
45-day	4.27 (3.97–4.59)	5.22 (4.86–5.62)	6.13 (5.71–6.59)	6.83 (6.36–7.34)	7.73 (7.19–8.30)	8.38 (7.78–9.00)	9.00 (8.35–9.67)	9.59 (8.87–10.3)	10.3 (9.49–11.1)	10.8 (9.92–11.7)
60-day	5.07 (4.70–5.44)	6.19 (5.76–6.67)	7.26 (6.75–7.80)	8.08 (7.51–8.67)	9.12 (8.46–9.79)	9.85 (9.14–10.6)	10.6 (9.77–11.4)	11.2 (10.4–12.1)	12.0 (11.0–13.0)	12.5 (11.5–13.6)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

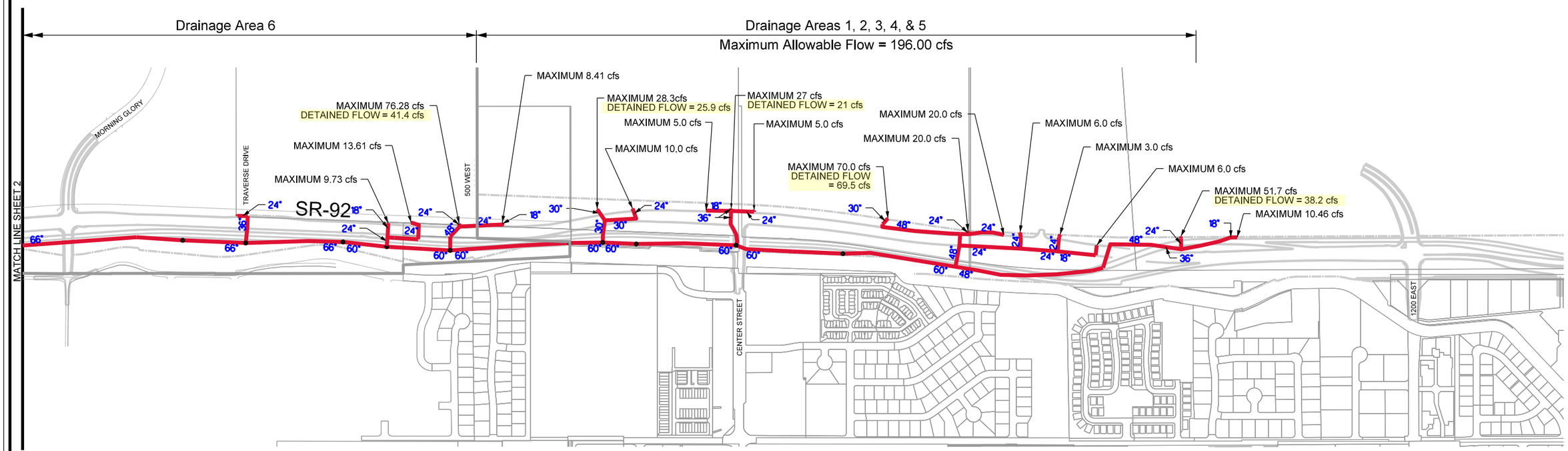
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical

Appendix B: Allowable Discharge Exhibits



NOTES

1- DOES NOT INCLUDE UDOT FLOWS.

2- MAXIMUM DETAINED FLOWS ARE DETAINED 100 YR FLOWS.

SCALE (FEET)

0 400 800 1200 1600

MW BROWN ENGINEERING, INC
Office: (801) 377-1790 Fax: (801) 377-1789
578 East 770 North, Orem UT 84097

REGISTERED PROFESSIONAL ENGINEER
NO. 174774
MATT W. BROWN
STATE OF UTAH

No.	Date	By	REVISIONS	Notes

Designed
Drawn J.M. MYERS
Checked M.W. BROWN
Date 4-09-2013

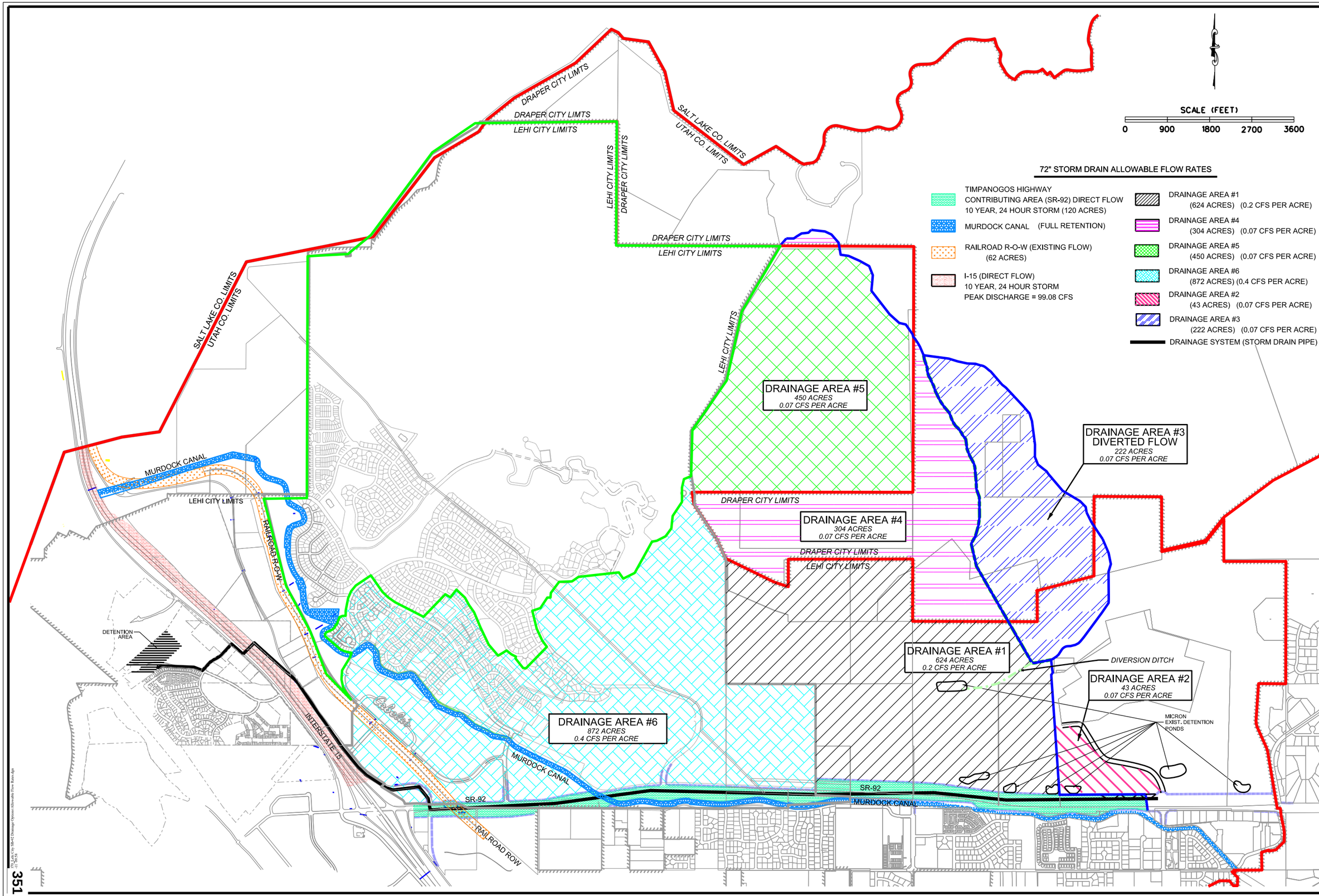
Title: DRAINAGE AGREEMENT EXHIBIT B

Client: LEHI CITY ALLOWABLE FLOW RATE

Drawing Name: REVISED - AUG 13, 2013

PROJECT NO.
2012.059

SHEET NO.
2



MW BROWN ENGINEERING, INC
Office: (801) 377-1790 Fax: (801) 377-1789
578 East 770 North, Orem UT 84097

No.	Date	By	REVISIONS Notes

Designed
Drawn D.A. BUFFO
Checked M.W. BROWN
Date JANUARY 27, 2010

Title: EXHIBIT "A"
Client: LEHI CITY ALLOWABLE FLOW RATE
DATE JANUARY 4, 2013

PROJECT NO. 2012.059

SHEET NO. 1

Appendix C: Geotechnical Report with Infiltration Testing

GeoStrata 14425 S Center Point Way, Bluffdale, Utah 84065
T: (801) 501-0583 ~ info@geostrata-llc.com

To: **D.R. Horton**
Attention: Dan Mitchell
12351 South Gateway Park Place
Draper, Utah 84020

From: **Caleb R. Allred, P.E.**
Project Geotechnical Engineer

Date: **June 23, 2021**

Subject: **Micron Property – Infiltration Testing**
Approximately 500 West and State Road 92
Lehi, Utah
GeoStrata Job No. 589-100

Mr. Mitchell;

At your request, GeoStrata has completed infiltration testing in general accordance with Appendix C of the Utah Administrative Code R317-4 for the proposed retention pond areas as highlighted on an Exhibit Map provided by LEI within the Micron Property located in the Lehi, Utah. Due fencing and limited site access one of the infiltration locations was more north along the same drainage. The location of the infiltration testing is shown on Plate A-1, *Infiltration Test Location Map*.

GeoStrata completed the infiltration testing generally according to Appendix C of the Utah Administrative Code R317-4, because this method provides guidelines of how to prepare the infiltration hole and how to perform the test and complete the test. The problem with infiltration testing is the testing is very difficult to reproduce. A relatively small change in elevation or location can provide produce a variety of results. We recommend that during the design of the retention areas that the infiltration rates provided in the letter have a factor of safety applied, and the infiltration rates used in design are compared to published documents for similar soil types such as Utah City Engineers Association, Saturated Hydraulic Conductivity Rate According to Soil Types (https://www.ucea.net/copy-of-wet-swales-7).

On June 17th, 2021, the test pits were excavated at the four locations as shown in Plate A-1 and the infiltration tests were performed at depths of between 4 feet 10 inches and 5 feet 6 inches below the existing ground surface. Subsurface soils at the site varied dramatically across the property. Logs of the subsurface conditions, as encountered in the explorations, were recorded at the time of excavation by a qualified representative of GeoStrata and are presented on Plates B-1 through B-4. GeoStrata has elected to classify the soils according to both USCS and USDA methods. To aid with the soil classification we have completed laboratory testing, results of the laboratory testing are included on Plates B-1 to B-4.

INFILTRATION TEST RESULTS

The infiltration testing was completed by excavating a hole that was approximately 4 inches in diameter and between 14 to 20 inches in depth. The excavated hole was then prepared to remove the smeared soils and 2 to 3 inches of gravel was placed in the bottom of the hole. The hole was then filled to a minimum of 12 inches above the gravel. According to Appendix C of the Utah Administrative Code R317-4 the infiltration tests at IT-2, IT-3, and IT-4 consisted of Type 1 or Type 2 soils, (12 inches of water seeps away in 10 minutes, two times in succession. As such, the Test Procedure for Type 1 and Type 2 soils was completed for this location.

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Infiltration Test Location IT-1 did not meet the Type 1 or Type 2 soil classification and the 4-hour saturation period, and minimum 16-hour swell period was achieved prior to running the final infiltration test. A summary of the results of our infiltration testing is as follows;

Micron Property Lehi, Utah Location: IT-1 Soils: CL-ML (Sandy Clay Loam) Test Elevations: 5-ft to 5-ft 6-in Diameter: 4 inches				
Depth	Time Difference (minutes)	Depth Difference (inches)	Infiltration Rate	
			(min/in)	(in/hour)
5-5½	30	7	4.29	14.00
5-5½	30	6	5.00	12.00
5-5½	30	5	6.00	10.00
5-5½	30	4.75	6.32	9.50
5-5½	30	4.5	6.67	9.00
5-5½	30	4.5	6.67	9.00
Finalized Rate			6.67	9.00

Micron Property Lehi, Utah Location: IT-2 Soils: SM (Loamy Sand) Test Elevations: 4-ft 6-in to 5-ft Diameter: 4 inches				
Depth	Time Difference (minutes)	Depth Difference (inches)	Infiltration Rate	
			(min/in)	(in/hour)
4½-5	2	8	0.25	240.00
4½-5	2	8	0.25	240.00
4½-5	2	8	0.25	240.00
Finalized Rate			0.25	240.00

Micron Property Lehi, Utah Location: IT-3 Soils: Sandy SILT (Loam) Test Elevations: 5-ft to 5-ft 6 inches Diameter: 4 inches				
Depth	Time Difference (minutes)	Depth Difference (inches)	Infiltration Rate	
			(min/in)	(in/hour)
4½-5	10	5.25	1.90	31.50
4½-5	10	5	2.00	30.00
4½-5	10	4.75	2.11	28.50
4½-5	10	4.5	2.22	27.00
4½-5	10	4.5	2.22	27.00
Finalized Rate			2.22	27.00

Micron Property Lehi, Utah Location: IT-4 Soils: Clayey SAND (Sandy Loam) Test Elevations: 5-ft to 5-ft 6 inches Diameter: 4 inches				
Depth	Time Difference (minutes)	Depth Difference (inches)	Infiltration Rate	
			(min/in)	(in/hour)
5-5½	5	3.5	1.43	42.00
5-5½	5	3.5	1.43	42.00
5-5½	5	3.25	1.54	39.00
5-5½	5	3.125	1.60	37.50
5-5½	5	3.125	1.60	37.50
5-5½	5	3.125	1.60	37.50
Finalized Rate			1.60	37.50

It should be noted that the tests were performed using clean water. Sediment collected from runoff may reduce the performance of the retention ponds resulting in slower than observed infiltration rates. If possible, sediment should be settled/filtered out of the flow prior to entering the drainage area.

The results of the testing contained in this memorandum are based on the information available to us at the time of our evaluation, the results of our field observations, our limited subsurface exploration and our understanding of the proposed site development. This memorandum was prepared in accordance with the generally accepted standard of practice at the time the report was written. No other warranty, expressed or implied, is made.

This memorandum was written for the exclusive use of D.R. Horton and only for the proposed project described herein. It is the Client's responsibility to see that all parties to the project including the Designer, Contractor, Subcontractors, etc. are made aware of this memorandum in its entirety. We are not responsible for the technical interpretations by others of the information described or documented in this memorandum. The use of information contained in this memorandum for bidding purposes should be done at the Contractor's option and risk.

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ATTACHMENTS

Appendix A

Plate A-1	Infiltration Test Location Map

Appendix B

Plate B-1 to B-4	Test Pit Logs

Legend

Infiltration Test Locations

400 0 400 800 1200 1600 ft

1:20000

N

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D.R. Horton
Mircon Property - Infiltration Testing
Lehir, Utah
Project Number: 589-100

Infiltration Test Location Map

Plate A-1

DATE	
STARTED:	6/17/21
COMPLETED:	6/18/21
BACKFILLED:	6/18/21

D.R. Horton
Micron Property Infiltration Testing
Lehi, Utah
Project Number 589-100

GeoStrata Rep: C. Allred
Rig Type: Track-hoe

TEST PIT NO: IT-1
Sheet 1 of 1

LOCATION
NORTHING EASTING ELEVATION -ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0				SM	Silty SAND - slightly moist, light brown, some organics thoughout						
					CL-ML	Silty CLAY with sand - medium stiff, moist, brown (Sandy Clay Loam)						
1												
	5											
						Bottom of Test Pit @ 5.5 Feet						
2												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 1

DATE	
STARTED:	6/17/21
COMPLETED:	6/17/21
BACKFILLED:	6/17/21

D.R. Horton
Micron Property Infiltration Testing
Lehi, Utah
Project Number 589-100

GeoStrata Rep: C. Allred
Rig Type: Track-hoe

TEST PIT NO: IT-2
Sheet 1 of 1

LOCATION
NORTHING EASTING ELEVATION -ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0				SP	Poorly Graded SAND - slightly moist, brown, some organic thoughout						
					GM	Silty GRAVEL with sand - medium dense, moist, brown, 3-inch minus materials						
1												
					SM	Silty SAND - medium dense, moist, brown (Loamy Sand)		7.5	38.8			●
	5					Bottom of Test Pit @ 5 Feet						
2												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 2

DATE	
STARTED:	6/17/21
COMPLETED:	6/17/21
BACKFILLED:	6/17/21

D.R. Horton
Micron Property Infiltration Testing
Lehi, Utah
Project Number 589-100

GeoStrata Rep: N. Flores
Rig Type: Track-hoe

TEST PIT NO: IT-3
Sheet 1 of 1

LOCATION
NORTHING EASTING ELEVATION -ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0				SC	Clayey SAND - medium dense, slightly moist, brown, some organics thoughout						
					CL	Lean CLAY with sand - medium stiff, moist, dark brown, trace amount of organic material						
					ML	Sandy SILT - medium dense, moist, light brown, some iron staining (Loam)						
1								11.0	76.3			●
	5					Bottom of Test Pit @ 5.3 Feet						
2												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 3

DATE		
STARTED:	6/17/21	
COMPLETED:	6/17/21	
BACKFILLED:	6/17/21	

D.R. Horton
Micron Property Infiltration Testing
Lehi, Utah
Project Number 589-100

GeoStrata Rep: N. Flores
Rig Type: Track-hoe

TEST PIT NO: IT-4
Sheet 1 of 1

LOCATION
NORTHING EASTING ELEVATION -ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0				SC	Clayey SAND - medium dense, slightly moist to moist, brown to gray-brown, some organics in the top 6 inches (Sandy Loam)						
1								2.5	26.2			
	5											
						Bottom of Test Pit @ 5.5 Feet						
2												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

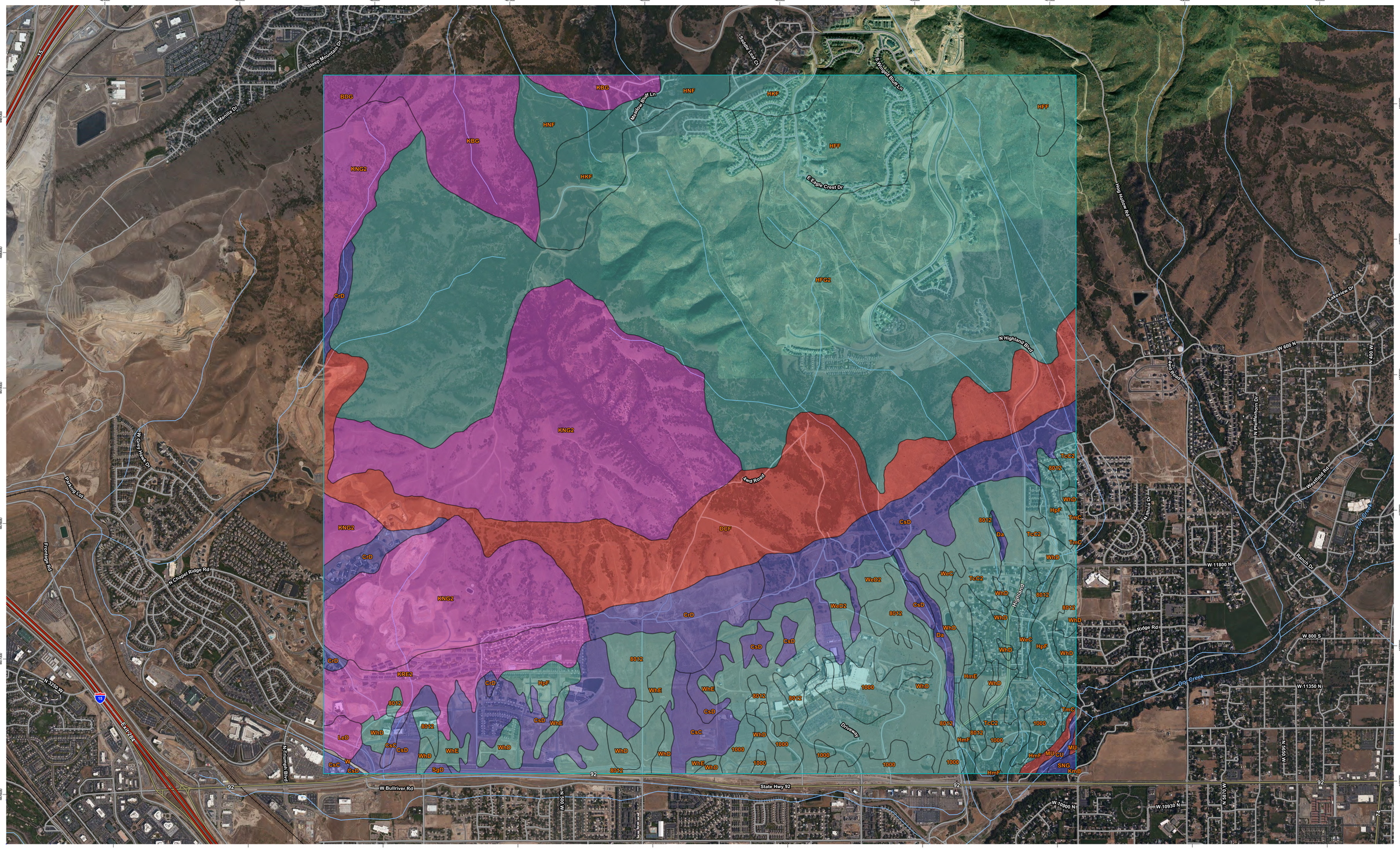
WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 4

Appendix D: NRCS Soil Group Map and Curve Numbers

Hydrologic Soil Group—Salt Lake Area, Utah, and Utah County, Utah - Central Part
(Micron)



Map Scale: 1:12,800 if printed on D landscape (34" x 22") sheet.

Meters: 0 150 300 600 900

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Salt Lake Area, Utah
Survey Area Data: Version 13, Jun 8, 2020

Soil Survey Area: Utah County, Utah - Central Part
Survey Area Data: Version 13, Jun 8, 2020

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2016—Sep 14, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table 5.5 Runoff curve numbers for urban areas (Mockus, 1969)[a]

Cover Description	Average Percent Impervious Area[b]	Curve Numbers for Hydrologic Soil Group			
Cover Type and Hydrologic Condition		A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.)[c]:					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious area only)[d]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1 to 2 in. sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre (506 m^2) or less (town houses)	65	77	85	90	92
1/4 acre (1,012 m^2)	38	61	75	83	87
1/3 acre (1,349 m^2)	30	57	72	81	86
1/2 acre (2,023 m^2)	25	54	70	80	85
1 acre (4,047 m^2)	20	51	68	79	84
2 acres (8,094 m^2)	12	46	65	77	82
Developing urban areas					
Newly graded area (pervious areas only, no vegetation)[e]		77	86	91	94
Idle lands (CNs are determined using cover types similar to those in Table 5.6)					

a. Average runoff condition, and $I_a = 0.2S$.

b. The average percent impervious area shown was used to develop the composite *CN*s. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a *CN* of 98, and pervious areas are considered equivalent to open space in good hydrologic condition.

c. *CN*s shown are equivalent to those of pasture. Composite *CN*s may be computed for other combinations of open space cover type.

d. Composite *CN*s for natural desert landscaping should be computed using Figure 2.3 or 2.4 (in TR-55) based on the impervious area percentage (*CN* = 98) and the pervious area *CN*. The pervious area *CN*s are assumed equivalent to desert shrub in poor hydrologic condition.

e. Composite *CN*s to use for the design of temporary measures during grading and construction should be computed using Figure 2.3 or 2.4 (in TR-55) based on the degree of development (impervious area percentage) and the *CN*s for the newly graded pervious areas.

Table 5.7 Runoff curve numbers for other agricultural lands[a] (Mockus, 1969)

Cover Description		Curve Numbers for Hydrologic Soil Group			
Cover Type	**Hydrologic Condition**	**A**	**B**	**C**	**D**
Pasture, grassland, or range-continuous forage for grazing[b]	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadow-continuous grass, protected from grazing and generally mowed for hay		30	58	71	78
Brush—brush-weed grass mixture with brush the major element[c]	Poor	48	67	77	83
	Fair	35	56	70	77
	Good	30[d]	48	65	73
Woods-grass combination (orchard or tree farm)[e]	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods[f]	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30[d]	55	70	77
Farmsteads—buildings, lanes, driveways, and surrounding lots		59	74	82	86

a. Average runoff condition, and $I_a = 0.2S$

b. *Poor:* less than 50% ground cover or heavily grazed with no mulch. *Fair:* 50 to 75% ground cover and not heavily grazed. *Good:* more than 75% ground cover and lightly or only occasionally grazed

c. *Poor:* less than 50% ground cover. *Fair:* 50 to 75% ground cover. *Good:* more than 75% ground cover

d. Actual curve number is less than 30; use $CN = 30$ for runoff computations

e. *CN*s shown were computed for areas with 50% woods and 50% grass (pasture) cover. Other combinations of conditions may be computed from the *CN*s for woods and pasture.

f. *Poor:* Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning. *Fair:* Woods are grazed but not burned, and some forest litter covers the soil. *Good:* Woods are protected from grazing, and litter and brush adequately cover the soil

Table 5.8 Runoff curve numbers for arid and semiarid rangelands[a] (Mockus, 1969)

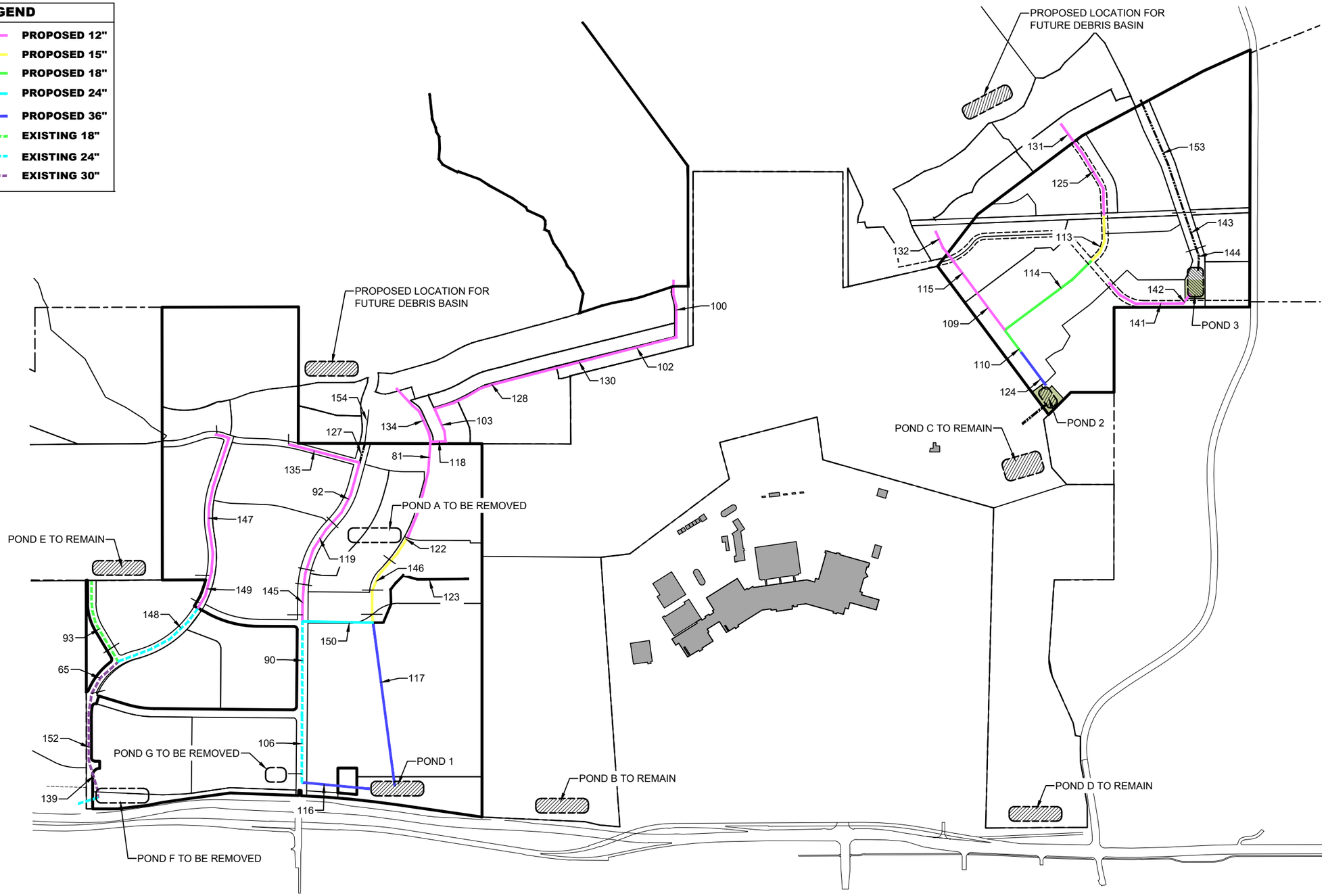
Cover Description		Curve Numbers for Hydrologic Soil Group:			
Cover Type	**Hydrologic Condition[b]**	**A[c]**	**B**	**C**	**D**
Herbaceous-mixture of grass, weeds, and low-growing brush, with brush the minor element	Poor		80	87	93
	Fair		71	81	89
	Good		62	74	85
Oak-aspen-mountain brush mixture of oak brush, aspen, mountain mahogany, bitter brush, maple, and other brush	Poor		66	74	79
	Fair		48	57	63
	Good		30	41	48
Pinyon-juniper-pinyon, juniper, or both; grass understory	Poor		75	85	89
	Fair		58	73	80
	Good		41	61	71
Sagebrush with grass understory	Poor		67	80	85
	Fair		51	63	70
	Good		35	47	55
Desert shrub-major plants include saltbush, greasewood, creosote-bush, blackbrush, bursage, palo verde, mesquite, and cactus	Poor	63	77	85	88
	Fair	55	72	81	86
	Good	49	68	79	84

a. Average antecedent moisture condition, and $I_a = 0.2S$. For range in humid regions, use Table 5.7.

b. *Poor:* less than 30% ground cover (litter, grass, and brush overstory). *Fair:* 30 to 70% ground cover. *Good:* more than 70% ground cover.

c. Curve numbers for group A have been developed for desert shrub.

Appendix E: Pond and Pipe Location Exhibit



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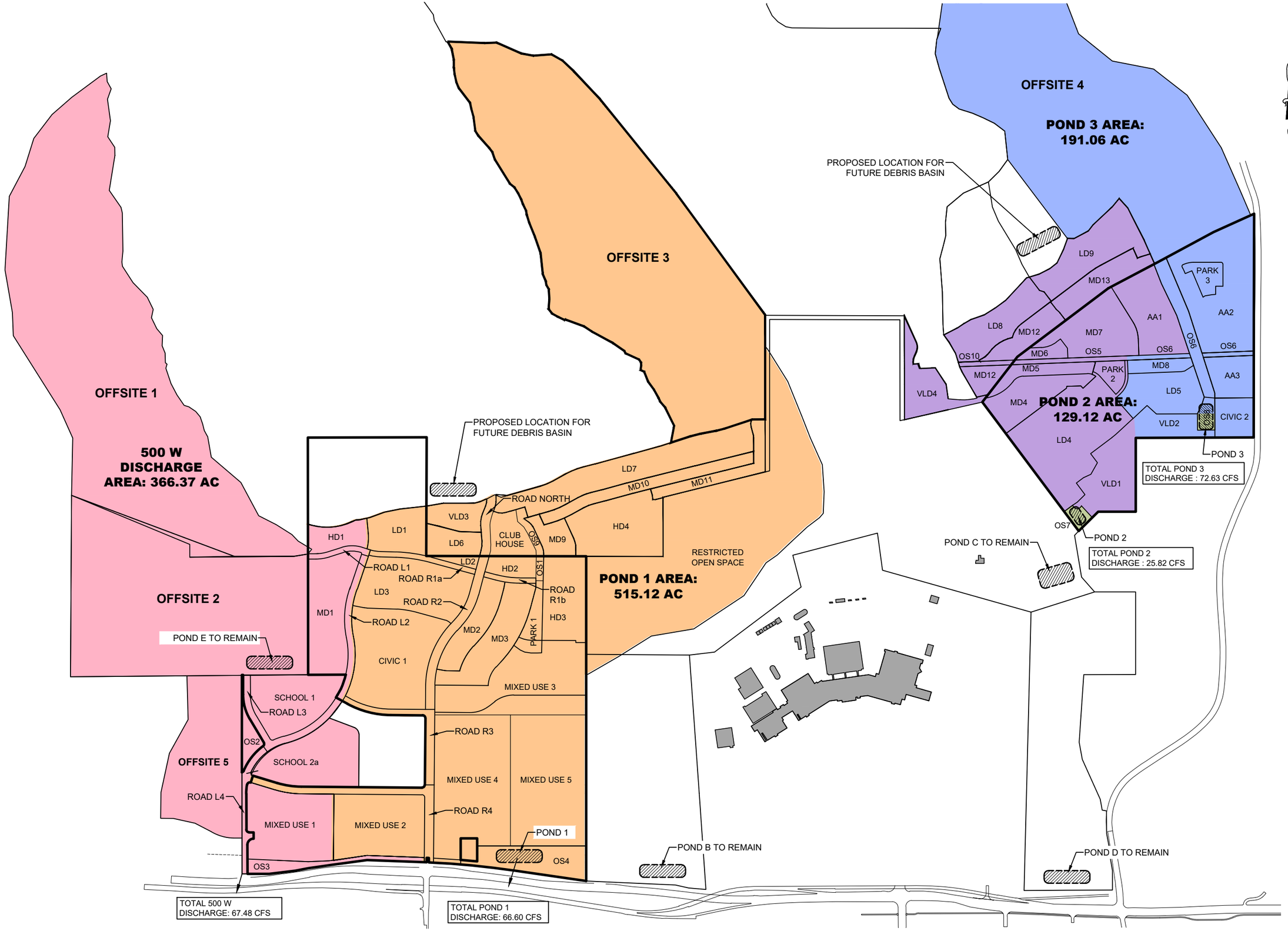
SKYE
LEHI, UTAH

POND & PIPE EXHIBIT

REVISIONS
1 -
2 -
3 -
4 -
5 -

LEI PROJECT #: 2011-0066
DRAWN BY: RWH
DESIGNED BY: BCT
SCALE: 1" = 1000'
DATE: 07/08/2022
SHEET
E1



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SKYE
LEHI, UTAH

OVERALL CONTRIBUTING AREA EXHIBIT

REVISIONS
1 -
2 -
3 -
4 -
5 -

LEI PROJECT #: 2011-0066
DRAWN BY: RWH
DESIGNED BY: BCT
SCALE: 1" = 1000'
DATE: 07/08/2022
SHEET E2

Appendix F: Channel Cross Section Designs

Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Dec 22 2021

Channel 143

Triangular

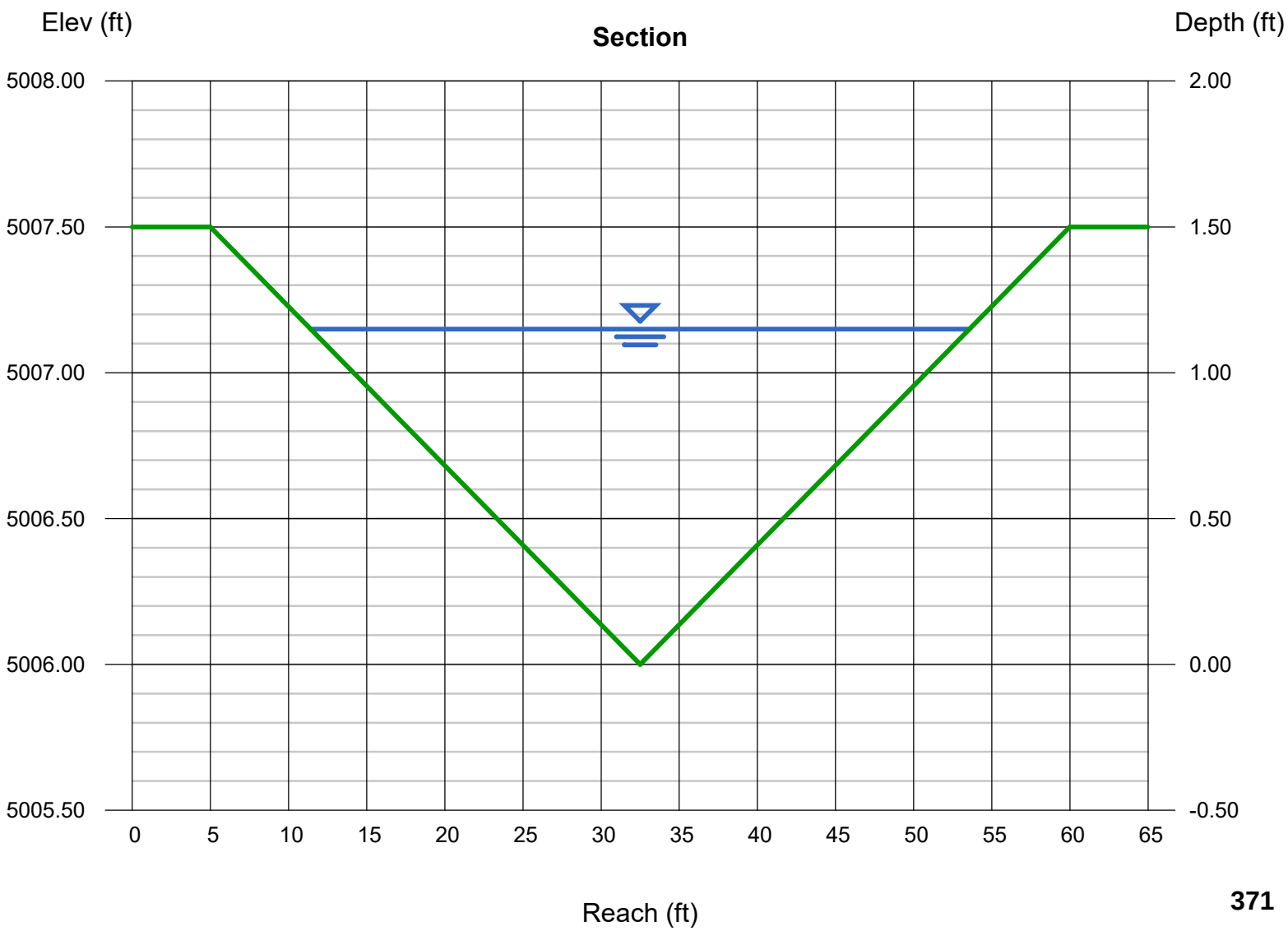
Side Slopes (z:1)	=	18.33, 18.33
Total Depth (ft)	=	1.50
Invert Elev (ft)	=	5006.00
Slope (%)	=	4.35
N-Value	=	0.045

Calculations

Compute by:		Known Q
Known Q (cfs)	=	115.17

Highlighted

Depth (ft)	=	1.15
Q (cfs)	=	115.17
Area (sqft)	=	24.24
Velocity (ft/s)	=	4.75
Wetted Perim (ft)	=	42.22
Crit Depth, Yc (ft)	=	1.20
Top Width (ft)	=	42.16
EGL (ft)	=	1.50



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Dec 22 2021

Channel 144

Triangular

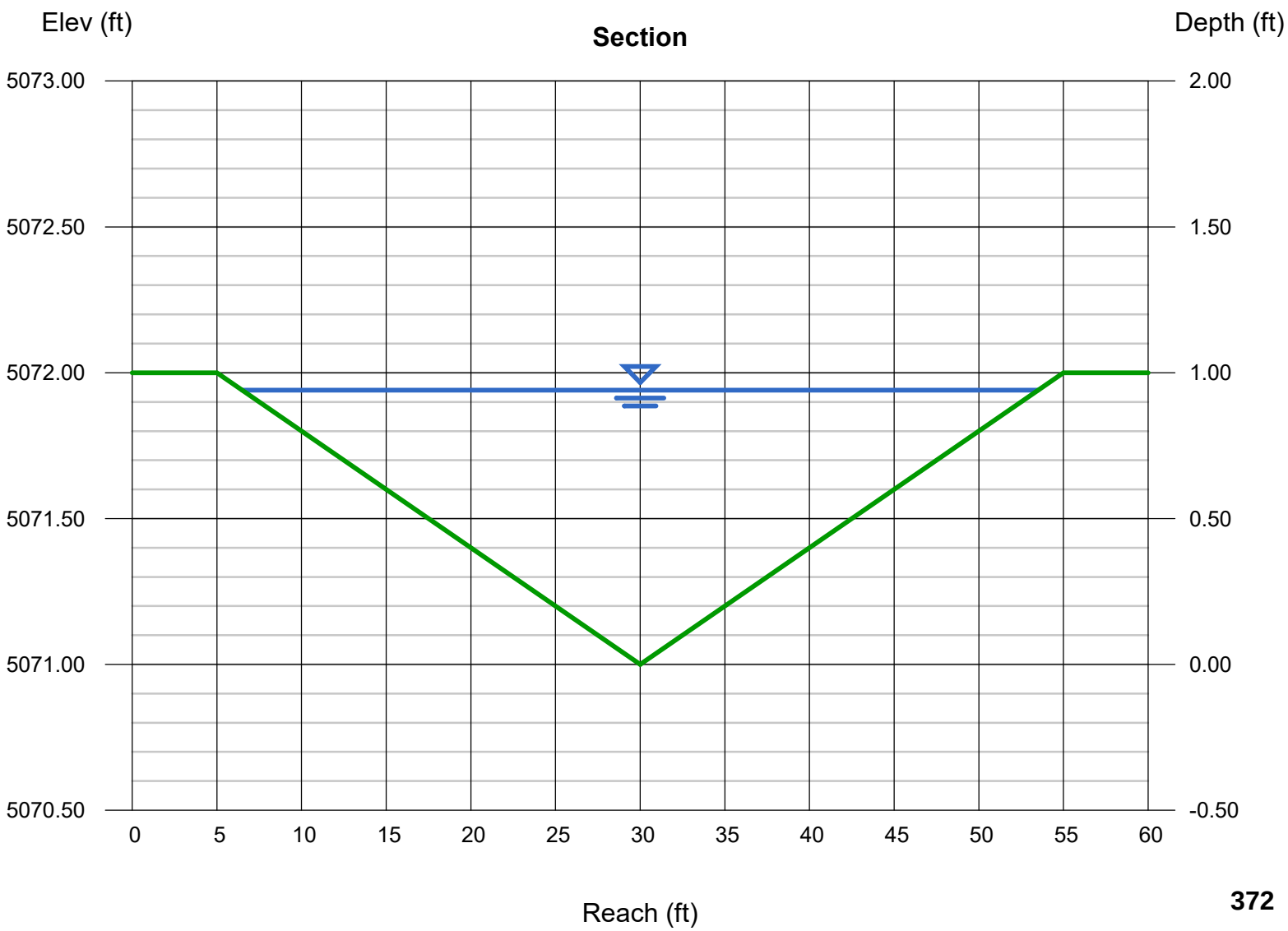
Side Slopes (z:1)	=	25.00, 25.00
Total Depth (ft)	=	1.00
Invert Elev (ft)	=	5071.00
Slope (%)	=	7.60
N-Value	=	0.045

Calculations

Compute by:		Known Q
Known Q (cfs)	=	121.03

Highlighted

Depth (ft)	=	0.94
Q (cfs)	=	121.03
Area (sqft)	=	22.09
Velocity (ft/s)	=	5.48
Wetted Perim (ft)	=	47.04
Crit Depth, Yc (ft)	=	1.00
Top Width (ft)	=	47.00
EGL (ft)	=	1.41



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Dec 22 2021

Channel 153

Triangular

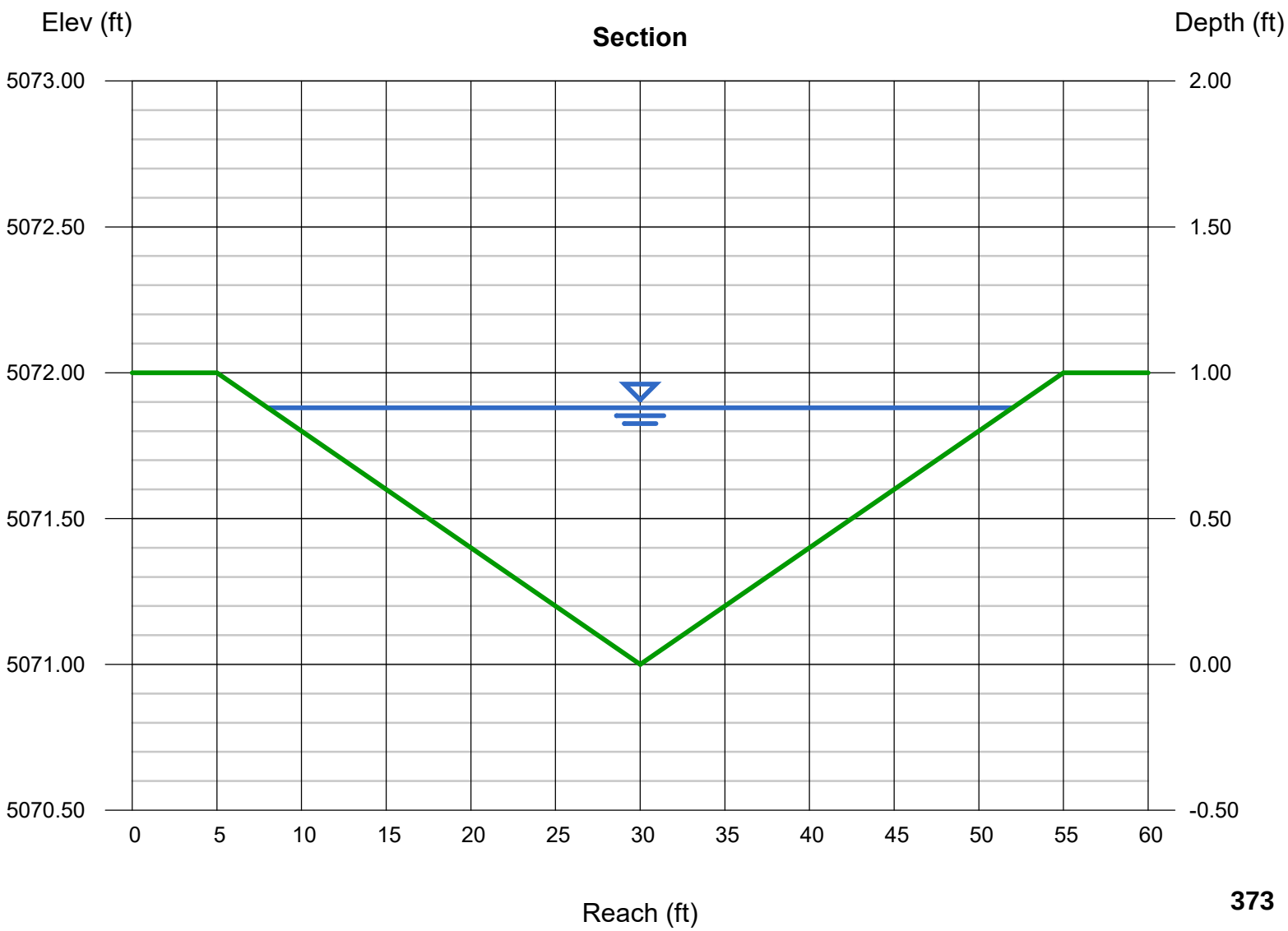
Side Slopes (z:1)	=	25.00, 25.00
Total Depth (ft)	=	1.00
Invert Elev (ft)	=	5071.00
Slope (%)	=	5.70
N-Value	=	0.045

Calculations

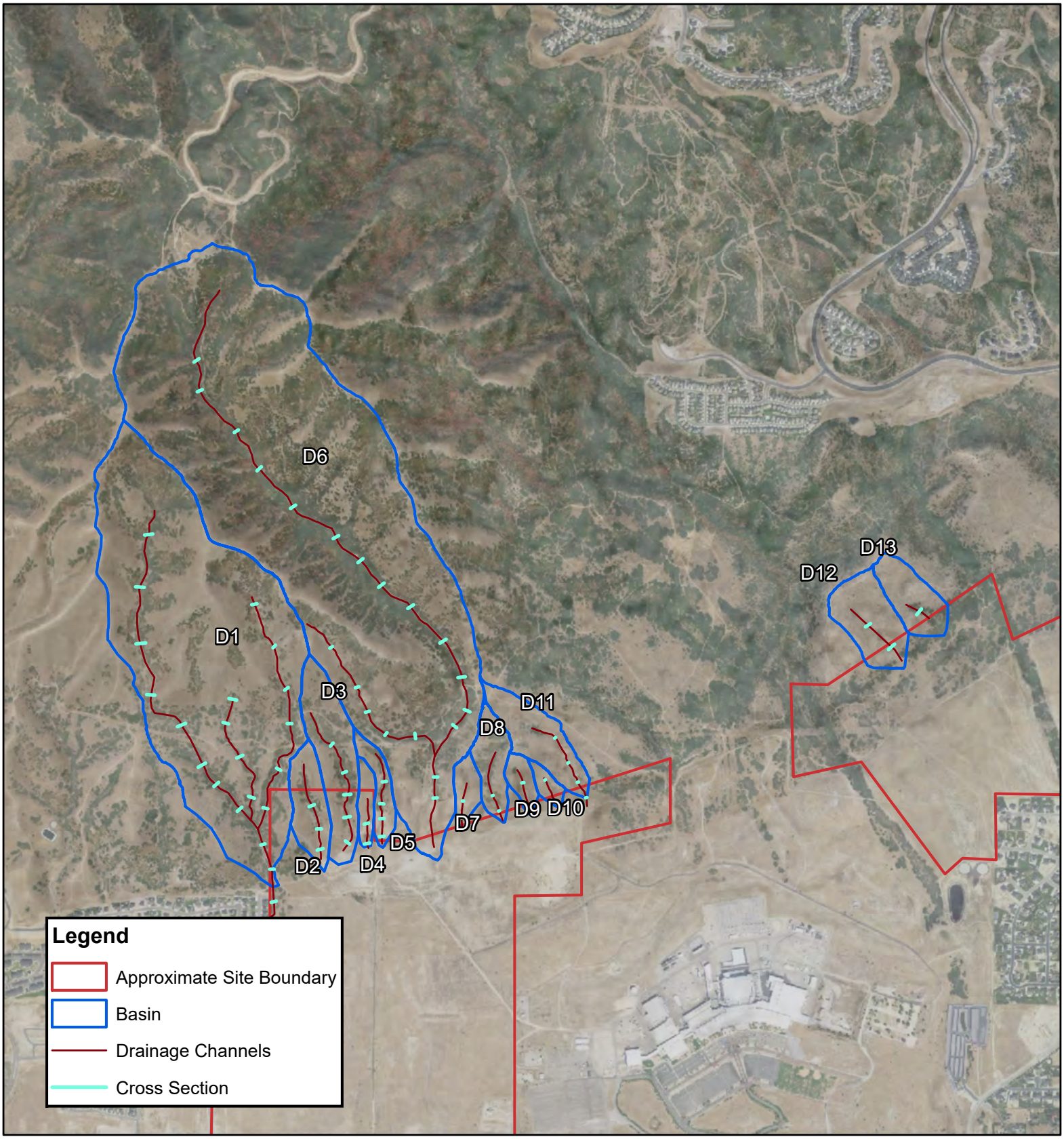
Compute by:		Known Q
Known Q (cfs)	=	85.89

Highlighted

Depth (ft)	=	0.88
Q (cfs)	=	85.89
Area (sqft)	=	19.36
Velocity (ft/s)	=	4.44
Wetted Perim (ft)	=	44.04
Crit Depth, Yc (ft)	=	0.95
Top Width (ft)	=	44.00
EGL (ft)	=	1.19



Appendix G: Debris Basin Exhibit



0 500 1,000 2,000 3,000 4,000 Feet

1:20,000

Basemap:
2012 12.5 cm HRO aerial imagery and hillshades derived from DEMs provided by the State of Utah AGRC

N

GeoStrata

Copyright, 2021

Debris Flow Hazard Study
DR Horton
Micron Project
Lehi, Utah
Project Number: 589-100

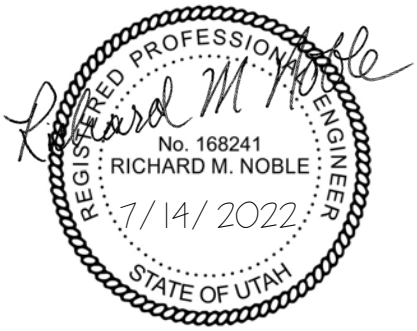
Debris Flow Assessment Map

Plate A-8

SKYE
AREA PLAN

CULINARY WATER SECTION

(HAL Project No.: 432.02.100)



July 2022

HANSEN ALLEN & LUCE INC
ENGINEERS

INTRODUCTION

The culinary water element of the Skye Area Plan includes all of the infrastructure needed to provide a reliable supply of drinking water to 1,751 equivalent residential units (ERU) to be located adjacent to the Texas Instruments (formerly Micron) facility in Lehi, Utah. The plan also provides for an additional 985 ERUs of future development not included in this area plan but to be addressed in future area plan amendments. The system includes a well, storage tank, booster pump station, pipelines, and pressure reducing stations (see Figures 1 and 2). In addition to drinking water, the system will provide fire protection water service to commercial and institutional buildings that will be constructed with sprinkler fire protection systems. Additionally, with the provided fire flow, any home exceeding 5,000 square feet will require an automatic fire sprinkler system, per municipal code: 10-3-1.

Water Source

The culinary water source for the Skye Area Plan includes a single new well to be constructed within Family Park at approximately 2200 North and 600 East (see Figure 2). The well will be constructed according to drinking water standards and will have an equipped flow capacity of 866 gallons per minute (gpm). Of this capacity, 554 gpm is allocated to this area plan and 312 gpm is allocated to future area plan amendments.

Offsite Transmission Pipeline

A new 8-inch-diameter transmission pipeline will be constructed to connect the well to the City's existing water distribution system. The 4,800-foot-long pipeline will be constructed within the 600 East street right-of-way and will connect to existing 10-inch diameter and 8-inch diameter pipelines at 600 East and 3200 North (see Figure 2).

Booster Pump Station

A new 866 gpm booster pump station will be constructed near the outlets of the existing Lower Hills Tanks to provide lift into the upper zone of Skye Area (see Figure 1). The booster pump will be designed to operate concurrently with the well pump so that when the well pump is turned on the booster pump will also turn on. Through this method of operation the Skye Area will not need to rely on storage capacity from the Lower Hills Tanks. Concurrent operation of the well pump and the booster pump will also avoid overtaxing the existing transmission/distribution pipeline system

Storage Tank

A new 1.1-million-gallon water storage tank will be constructed to north of the Skye Area. Of this storage capacity, 840,000 gallons will be provided for this area plan and the remaining 160,000 gallons will be provided for a future plan amendment. The elevation of the overflow will match the overflow elevation of the existing Seasons Tank (Elev. 5342 ft.), which is located west of the Skye Area.

Pressure Reducing Stations

The plan includes six new pressure reducing stations and 3 existing pressure reducing stations that will control pressures in an upper middle and lower pressure zone. The pressure reducing stations will use a 20-foot by 18-foot buried concrete vault that will contain valves for both the culinary water system and the pressurized irrigation system. The vaults will be constructed

outside the street right-of-way in a public utility easement according to Lehi City standards.

Distribution Pipelines

Distribution pipelines ranging from 6-inches to 12-inches in diameter will provide for distribution of water throughout the Skye Area in accordance with Lehi City pressure requirements (see Figures 1, 3, and 4). Distribution pipelines will use PVC C-900 pipe materials for all pipelines within Lehi City street rights-of-way. Pipelines constructed within easements on privately-owned land will use Class 350 Ductile Iron Pipe. The following are the pipe numbers for these ductile iron pipes: M4936, M2003, M4941, M3030, and M4500.

Project Phasing

The long-term plan for the Skye Area includes three phases as shown in Figure 5. Phase 1 represents this area plan and includes 1,751 Equivalent Residential Connections (ERC). Phase 2 represents a future area plan amendment that will contain an area to be addressed in a boundary adjustment between Lehi and Draper Cities and includes 523 ERCs. Phase 3 is a long-term future phase that is located north on Phases 1 and 2 and includes 462 ERCs. Future area plan amendments will be required for Phases 2 and 3. However, capacity for these future phases has been included in determining source, transmission, booster pump, and storage (Phase 2 only) capacities as listed in Table 1.

Within Phase 1 an interim phase of development will occur. The plan outlined in this document represents the long-range plan for the culinary water system. However, construction of these facilities will likely take 1 to 2 years to accomplish. Lehi City has agreed that, on an interim basis, up to 467 ERUs of new development can be constructed in the Skye area based on available existing capacity in the Seasons Tank and the Sand Pit Well. For purposes of this determination, an ERU will be considered a platted and occupied equivalent residential unit.

Certain other Lehi City water system infrastructure projects that are currently in progress must also be completed before this interim development can proceed. These improvements include re-equipping the Sand Pit Well, construction of the Vialletto Pressure Irrigation Reservoir and Booster Pump Station, construction of the Flight Park Pressure Irrigation Reservoir and Booster Pump Station, and construction of the 1200 East Culinary Water Booster Pump Station. Completion of the long-range source, transmission, booster pumps, and storage outlined in this plan is required before development beyond the interim number of ERUs can occur.

Table 1 - Micron Area Culinary Water System
Design Criteria and System Requirements (Results)

	Lehi City Design Criteria	Results	Notes
ERCs		1,751 ERC	Phase 1 Development (this area plan)
		523 ERC	Phase 2 Development (boundary adjustment between Lehi and Draper)
		462 ERC	Phase 3 Development (long-term future)
		2,736 ERC	Total of 3 Phases
Source (Peak Daily Flow)	**456 gpd/ERC**	554 gpm	Phase 1 Development (this area plan)
		166 gpm	Phase 2 Development (boundary adjustment between Lehi and Draper)
		146 gpm	Phase 3 Development (long-term future)
		866 gpm	Total of 3 Phases
Peak Hourly Flow	0.80 gpm / ERC	1,401 gpm	Phase 1 Development (this area plan)
		418 gpm	Phase 2 Development (boundary adjustment between Lehi and Draper)
		- gpm	Phase 3 peak flow not included in this analysis
		1,819 gpm	Total of Phases 1 and 2
Peak Instantaneous	1.00 gpm/ERC	1,751 gpm	Phase 1 Development (this area plan)
		523	Phase 2 Development (boundary adjustment between Lehi and Draper)
		-	Phase 3 peak flow not included in this analysis
		2,274	Total of Phases 1 and 2
Equalizaiton Storage:	400 gallons/ERC	700,400 gal.	Phase 1 Development (this area plan)
		209,200 gal.	Phase 2 Development (boundary adjustment between Lehi and Draper)
		- gal.	Phase 3 storage not included in this analysis
		909,600 gal.	Total of Phases 1 and 2
Emergency Storage	20% EQ Storage	140,080 gal.	Phase 1 Development (this area plan)
		41,840 gal.	Phase 2 Development (boundary adjustment between Lehi and Draper)
		- gal.	Phase 3 storage not included in this analysis
		181,920 gal.	Total of Phases 1 and 2
Total Culinary Storage		**1,091,520 gal.**	
Minimum Pressure	50 psi at peak hourly + fire 20 psi at extreme peak	50.01 psi 51.48 psi	at Node M555 at Node M555
Fire Flow	550 gpm	550 gpm	Interior sprinkler flows are not intended to provide for tall stacks or high sprinkler rates

Micron Area Plan Amendment
Updated from "Latest ERU's for HAL" spreadsheet from Ben Tuckett 04-2022

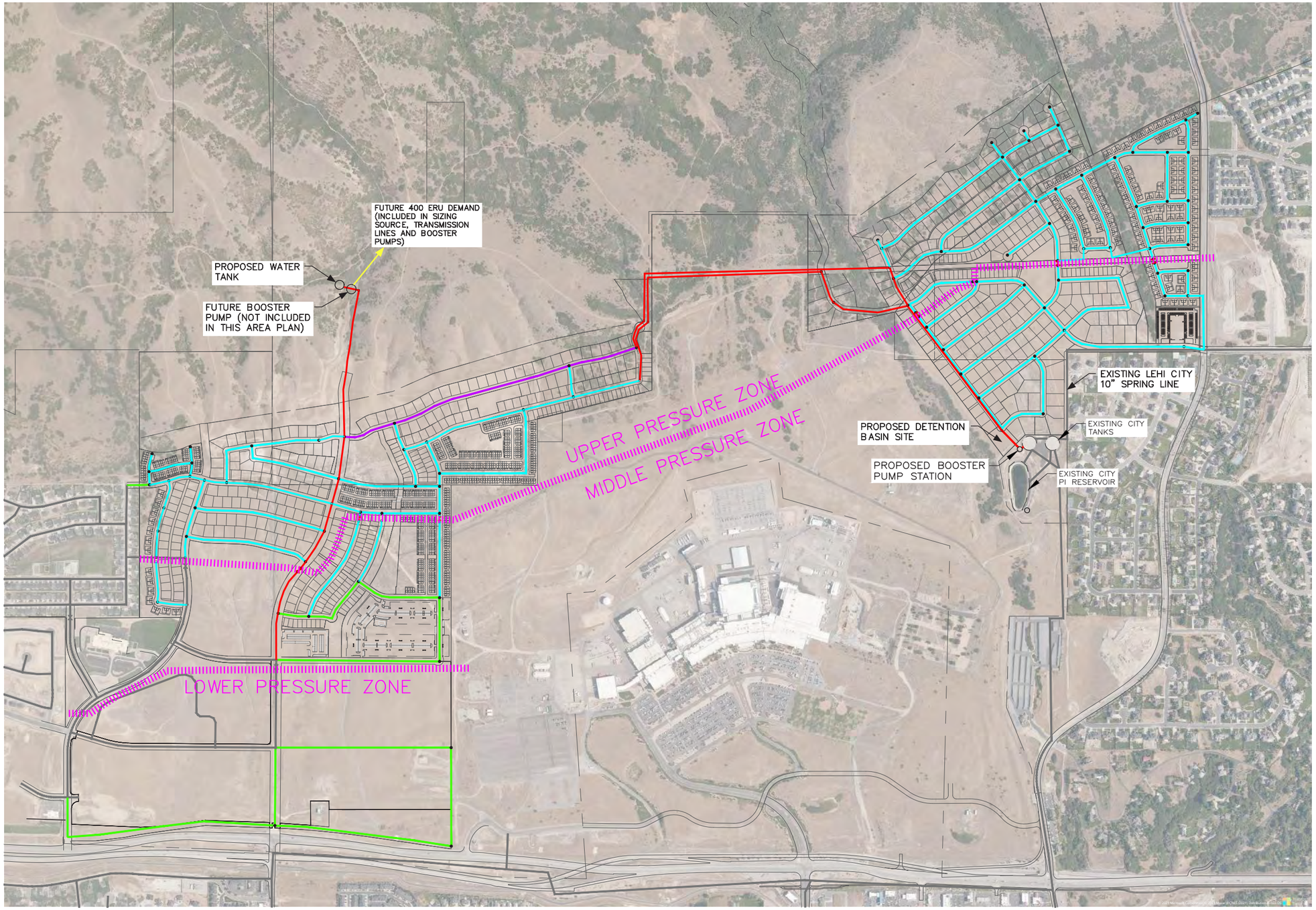
ERUs/Parcel

Parcel	Land Use	Acres	Density	Units
1	Open Space	3.67		
2	Open Space	8.9		
3	Gardner MU	100	4.6	460
4	DR Horton MU	20.6	16.2	334
5	Middle School	30.2		
6	Open Space	2.3	2	0
7	Elementary School	12.7		
8	Single Story Duplex	6.7	4	28
9	Horton Plus (Alley)	7.5	4	30
10	Church Site	22.7	1	27
11	Horton Plus (Alley)	6.8	4	28
12	Cotttage	10.5	5.2	55
13	Park	2.6	0	0
14	Townhomes	13.6	4.3	59
15	Alley-Load Towns	3	43.7	131
16	Emerald	1	3	4
17	Emerald	16.1	3	48
18	Townhomes	4.1	6	6
Newly Added	Alley-Load Towns			32
19	Emerald	6.7	3	20
Total (Lehi - west portion)				1262
20	Emerald	4.3	3.7	16
21	Emerald	4.4	2.3	10
22	Clubhouse	4.4	3	10
23	Emerald	19.1	2	50
24	Cottage (changed)	7	6.6	46
25	Cottage	3.8	2.6	10
26	Townhomes	15.1	6.9	104
Newly Added	Alley-Load Towns			137
27	Cottage	5.3	1.5	8
28	Park	3	0	0
29	30' Buffer Easement	1.6	0	0
Total (Draper -west portion)				391
West Total				1653

Parcel	Land Use	Acres	Density	Units
30A	Estates	10	1.3	13
30B	Estates	1	2.0	2
31A	Emerald	9.1	2.9	26
31B	Emerald	24.1	2.7	64
32	Park	2.1	0	5
33a	Horton Plus	3.1	3.2	10
33b	Horton Plus	5.3	3.6	19
34A	Cottage	1	6.0	6
34B	Cottage	2.3	7.8	18
35	Cottage	2.4	5.4	13
36	Estates	2.7	1.9	5
37	Church	3.6	1.5	2
38	Active Adult	5.3	5.7	30
39	Active Adult	24.6	5.4	134
40	Park	6.7	0	5
41	Active Adult	11.1	5.6	62
42	Horton Plus	12.3	3.3	40
43A	Cottage	1.3	8.5	11
Total (Lehi - east portion)				465
43B	Cottage	0.3		2
44	Cottage	1.1	0	4
45	Horton Plus	1.6	2.5	4
46	Horton Plus	12	3.8	45
47	Park	2	0.0	0

48	Emerald	23	2.7	61
49	Park	6.8	0.0	0
50	Horton Plus (changed)	6.2	2.1	13
51	Horton Plus (changed)	1.2	2.5	3
Total (Draper - east portion)				132
East Total				597

TOTAL MICRON AREA	2250	plus 350 additional lots above project.



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0 500 1000
SCALE IN FEET

PROPOSED WATERLINES

- 6" DIA
- 8" DIA
- 10" DIA
- 12" DIA

EXISTING WATERLINES

- 6"–20" DIA

PRV'S

- PROPOSED
- EXISTING

FILE DATE: 1.4.2022 14:32:31 (CAH)

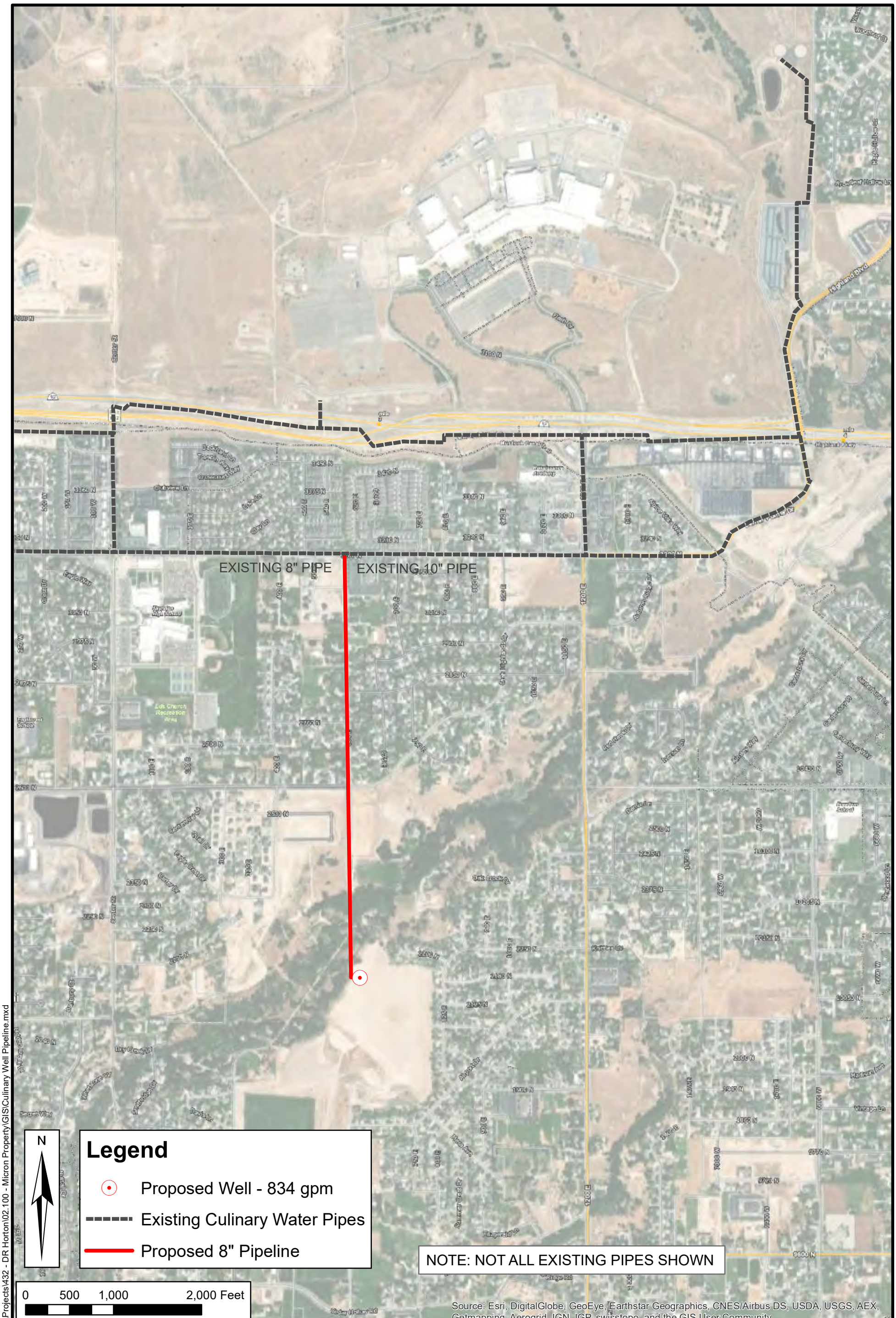
FILE NAME: PROJECTS\432 – DR HORTON\02.100 – MICRON PROPERTY\CAD\FIGURES\FIGURE 1 WATER.DWG

HANSEN ALLEN & LUCE inc ENGINEERS

10/07

CULINARY WATER – ONSITE DISTRIBUTION SYSTEM

FIGURE 1



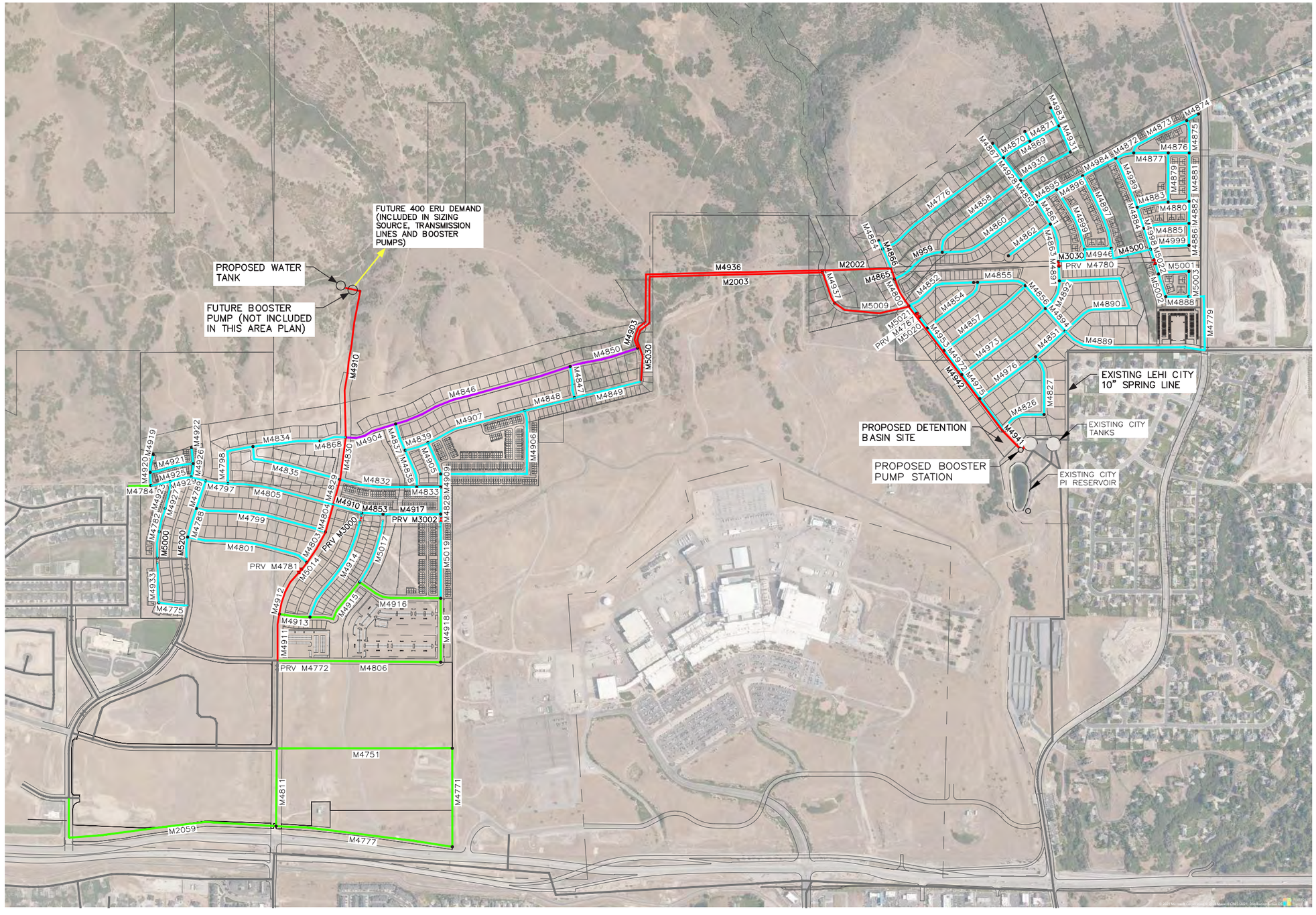
Date: 1/3/2022
Document Path: H:\Projects\432 - DR Horton\02.100 - Micron Property\GIS\Culinary Well Pipeline.mxd

HANSEN ALLEN & LUCE inc ENGINEERS

MICRON AREA PLAN AMENDMENT

OFFSITE CULINARY WATER

FIGURE 2


FUTURE 400 ERU DEMAND (INCLUDED IN SIZING SOURCE, TRANSMISSION LINES AND BOOSTER PUMPS)
PROPOSED WATER TANK
FUTURE BOOSTER PUMP (NOT INCLUDED IN THIS AREA PLAN)
PROPOSED DETENTION BASIN SITE
PROPOSED BOOSTER PUMP STATION
EXISTING LEHI CITY 10" SPRING LINE
EXISTING CITY TANKS
EXISTING CITY PI RESERVOIR
PRV M4781
PRV M4772
PRV M3002
PRV M3000
PRV M4780
PRV M5021
M4936
M2002
M2003
M4903
M5030
M4910
M4937
M5009
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M4751
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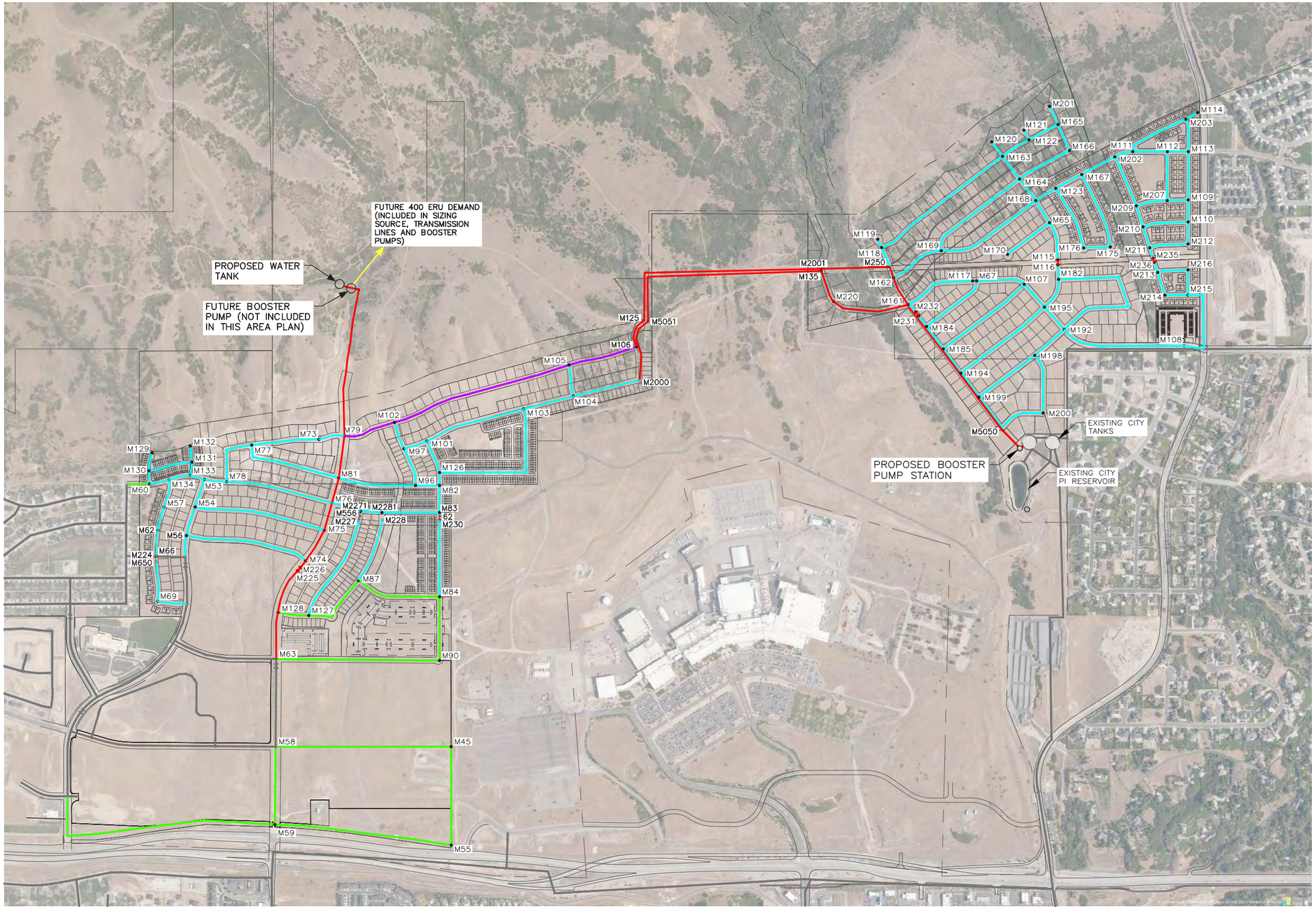

N

0 500 1000
SCALE IN FEET

PROPOSED WATERLINES

- 6" DIA
- 8" DIA
- 10" DIA
- 12" DIA

EXISTING WATERLINES

- 6"–20" DIA

PRV'S

- PROPOSED
- EXISTING

FILE DATE: 1.4.2022 14:32:31 (CAH)

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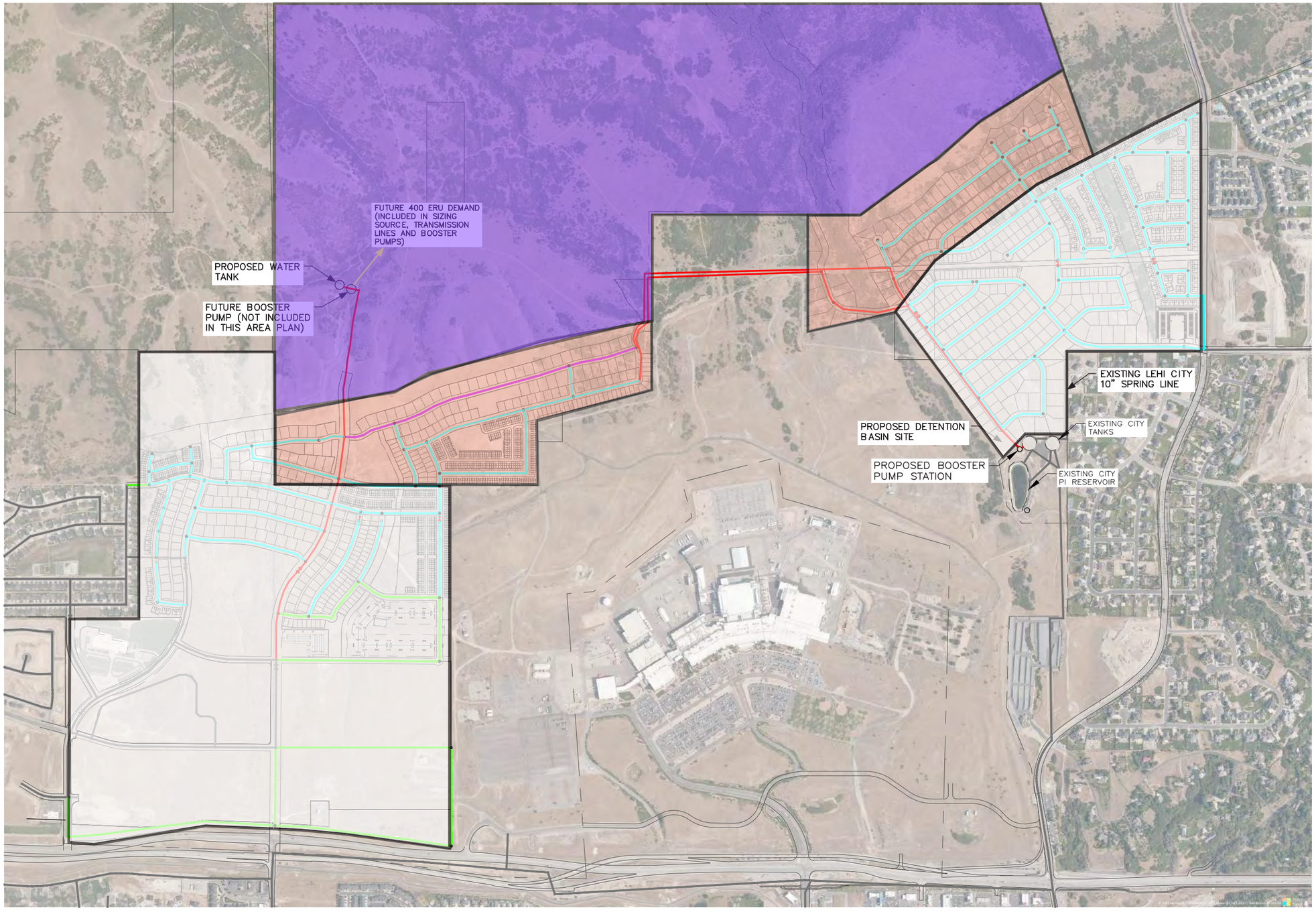
10/07

CULINARY WATER – JUNCTION NUMBERS FROM EPANET MODEL

FIGURE 4



N

0 500 1000
SCALE IN FEET

PROPOSED WATERLINES

- 6" DIA
- 8" DIA
- 10" DIA
- 12" DIA

EXISTING WATERLINES

- 6"–20" DIA

PRV'S

- PROPOSED
- EXISTING

PHASES

- PHASE 1 – SKYE AREA PLAN
- PHASE 2 – FUTURE SKYE AREA PLAN AMENDMENT
- PHASE 3 – LONG-TERM FUTURE SKYE AREA PLAN AMENDMENT

FILE DATE: 1.4.2022 14:32:31 (CAH)

FILE NAME: PROJECTS\432 – DR HORTON\02.100 – MICRON PROPERTY\CAD\FIGURES\FIGURE 1 WATER.DWG

10/07

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CULINARY WATER – DEVELOPMENT PHASING

FIGURE 5

DW Extreme Peak Flow Scenario
Model Results - Updated June 2022
Network Table - Nodes

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Head ft	Pressure psi
Junc M101	5112	0	0	5327.12	93.21
Junc M102	5122	50	50	5328.02	89.27
Junc M103	5100	137	137	5327.23	98.46
Junc M104	5123	8	8	5329.73	89.58
Junc M105	5150	46	46	5329.75	77.89
Junc M106	5148	0	0	5330.64	79.14
Junc M107	5043	9.5	9.5	5197.3	66.86
Junc M108	4975	2	2	5197.91	96.59
Junc M109	5041	0	0	5323.12	122.24
Junc M110	5025	0	0	5323.11	129.17
Junc M111	5074	0	0	5323.19	107.97
Junc M112	5067	5	5	5323.14	110.99
Junc M113	5059	0	0	5323.12	114.44
Junc M114	5079	67	67	5323.02	105.74
Junc M115	5035	0	0	5324.65	125.5
Junc M116	5035	0	0	5197.27	70.31
Junc M117	5069	18.5	18.5	5332.99	114.39
Junc M118	5135	0	0	5331.57	85.17
Junc M119	5146	0	0	5331.57	80.41
Junc M120	5167	0	0	5326.83	69.25
Junc M121	5144	0	0	5326.67	79.15
Junc M122	5134	0	0	5326.67	83.48
Junc M123	5080	0	0	5324.53	105.95
Junc M125	5163	0	0	5330.75	72.69
Junc M126	5073	104	104	5326.74	109.95
Junc M127	4952	0	0	5177.51	97.72
Junc M128	4970	0	0	5177.49	89.91
Junc M129	5165	32	32	5326.63	70.03
Junc M130	5154	0	0	5326.65	74.81
Junc M131	5129	0	0	5326.64	85.64
Junc M132	5149	6	6	5326.64	76.97
Junc M133	5121	0	0	5326.64	89.11
Junc M134	5130	0	0	5326.66	85.21
Junc M135	5135	3	3	5332.87	85.74
Junc M137	4969	0	0	5340.35	160.9
Junc M161	5070	10	10	5333.02	113.97
Junc M162	5110	4	4	5332.35	96.35
Junc M163	5148	0	0	5326.83	77.49
Junc M164	5115	45	45	5326.48	91.64
Junc M165	5130	0	0	5326.49	85.14
Junc M166	5105	0	0	5326.49	95.97
Junc M167	5076	0	0	5323.84	107.39
Junc M168	5088	0	0	5325.48	102.9
Junc M169	5098	13	13	5328.03	99.67

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Head ft	Pressure psi
Junc M170	5066	40	40	5324.92	112.19
Junc M175	5026	62	62	5323.73	129.01
Junc M176	5034	0	0	5324.32	125.79
Junc M182	5028	18	18	5197.27	73.34
Junc M184	5050	5	5	5197.4	63.87
Junc M185	5031	0	0	5197.33	72.07
Junc M192	4995	5	5	5197.3	87.66
Junc M194	5005	0	0	5197.29	83.32
Junc M195	5020	64	64	5197.27	76.81
Junc M198	4999	2	2	5197.28	85.92
Junc M199	4990	26	26	5197.27	89.81
Junc M200	4975	13	13	5197.27	96.31
Junc M2000	5122	0	0	5332.53	91.22
Junc M201	5144	61	61	5326.42	79.04
Junc M202	5073	0	0	5323.29	108.45
Junc M203	5082	0	0	5323.09	104.46
Junc M207	5046	0	0	5323.14	120.08
Junc M209	5059	0	0	5323.16	114.46
Junc M210	5036	0	0	5323.13	124.41
Junc M211	5022	0	0	5323.13	130.48
Junc M212	5016	67	67	5323.08	133.06
Junc M213	5005	0	0	5198.53	83.86
Junc M214	4991	0	0	5198.46	89.89
Junc M215	4987	30	30	5198.39	91.59
Junc M216	4999	0	0	5198.45	86.42
Junc M220	5104	13	13	5332.91	99.19
Junc M225	5005	0	0	5178.09	75
Junc M226	5012	0	0	5325.79	135.96
Junc M227	5061	28	28	5183.32	53
Junc M2271	5061	0	0	5324.71	114.26
Junc M228	5056	27.5	27.5	5176.9	52.39
Junc M2281	5059	131	131	5324.72	115.14
Junc M230	5040	45	45	5176.43	59.12
Junc M231	5059	0	0	5197.47	60
Junc M232	5063	5	5	5332.96	116.97
Junc M235	5017	0	0	5323	132.59
Junc M236	5014	0	0	5198.63	80
Junc M250	5120	0	0	5332.24	91.96
Junc M45	4860	115	115	5070.88	91.38
Junc M5050	4976	0	0	5339.27	157.41
Junc M5051	5163	0	0	5332.59	73.48
Junc M53	5112	0	0	5326.63	93
Junc M54	5083	0	0	5326.49	105.51
Junc M55	4832	115	115	5070.88	103.51
Junc M555	5055	15	15	5173.82	51.48
Junc M556	5061	0	0	5324.38	114.12
Junc M56	5063	48	48	5326.46	114.16

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Head ft	Pressure psi
Junc M57	5107	14	14	5326.65	95.18
Junc M59	4842	115	115	5071.34	99.37
Junc M60	5144	0	0	5326.68	79.15
Junc M62	5077	15	15	5326.66	108.18
Junc M65	5063	0	0	5325.02	113.53
Junc M67	5069	9	9	5197.33	55.6
Junc M69	5001	0	0	5173.83	74.89
Junc M73	5140	10	10	5327.63	81.3
Junc M74	5018	0	0	5325.89	133.41
Junc M75	5047	0	0	5326.3	121.02
Junc M76	5065	0	0	5326.6	113.35
Junc M77	5164	16	16	5327.06	70.65
Junc M78	5112	20	20	5326.67	93.01
Junc M79	5128	10	10	5327.93	86.63
Junc M81	5103	4	4	5327.06	97.09
Junc M82	5052	0	0	5326.69	119.02
Junc M83	5041	14	14	5326.02	123.5
Junc M84	4984	0	0	5176.61	83.46
Junc M87	4995	27.5	27.5	5176.97	78.85
Junc M90	4938	167	167	5176.49	103.34
Junc M96	5062	0	0	5326.98	114.82

DW Extreme Peak Flow Scenario
Model Results - Updated June 2022
Network Table - Links

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M2003	2173.89	12	0.85	207.07	0.59
Pipe M2059	1987.85	8	0.85	79.1	0.5
Pipe M3030	338.14	6	0.85	-96.47	1.09
Pipe M4500	405.46	6	0.85	121.02	1.37
Pipe M4751	1788.9	8	0.85	128.13	0.82
Pipe M4771	589.76	8	0.85	13.13	0.08
Pipe M4775	285.79	6	0.85	-15	0.17
Pipe M4776	1518.24	6	0.85	177.93	2.02
Pipe M4777	1818.29	8	0.85	-101.87	0.65
Pipe M4778	200.4	12	0.85	-1197.23	3.4
Pipe M4779	864.28	6	0.85	71.11	0.81
Pipe M47801	54.17	6	0.85	0	0
Pipe M4782	203.74	6	0.85	6.84	0.08
Pipe M4784	164.85	8	0.85	74.35	0.47
Pipe M4788	297.09	6	0.85	-30.14	0.34
Pipe M4789	284.87	6	0.85	-65.79	0.75
Pipe M4797	233.85	6	0.85	-36.6	0.42
Pipe M4798	596.92	6	0.85	-78.88	0.9
Pipe M4799	1305.71	6	0.85	35.65	0.4
Pipe M4800	323.33	12	0.85	902.49	2.56
Pipe M4801	1222.77	6	0.85	65.57	0.74
Pipe M4803	351.65	12	0.85	-668.29	1.9
Pipe M4804	288.81	12	0.85	-632.65	1.79
Pipe M4805	1048.24	6	0.85	22.29	0.25
Pipe M4806	1658.03	8	0.85	78.54	0.5
Pipe M4811	535.94	8	0.85	137.77	0.88
Pipe M4818	1825.74	12	0.85	-847.23	2.4
Pipe M4826	829.07	6	0.85	2.96	0.03
Pipe M4827	581.15	6	0.85	10.04	0.11
Pipe M4828	241.88	6	0.85	-166.45	1.89
Pipe M4829	251.06	12	0.85	-851.34	2.42
Pipe M4830	429.53	12	0.85	-888.5	2.52
Pipe M4832	794.95	6	0.85	28.8	0.33
Pipe M4833	231.89	6	0.85	110.71	1.26
Pipe M4834	666.09	6	0.85	-90.53	1.03
Pipe M4835	996.42	6	0.85	-4.35	0.05
Pipe M4837	276.45	6	0.85	166.53	1.89
Pipe M4838	388.91	6	0.85	81.91	0.93
Pipe M4839	236.62	6	0.85	74.62	0.85
Pipe M4846	1853.78	10	0.85	-368.33	1.5
Pipe M4847	296.51	6	0.85	23.05	0.26
Pipe M4848	521	6	0.85	222.12	2.52
Pipe M4849	667.94	6	0.85	-207.07	2.35
Pipe M4850	683.02	10	0.85	-437.38	1.79

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M4851	390.17	6	0.85	-20.4	0.23
Pipe M4852	680.07	6	0.85	18.5	0.21
Pipe M4853	199.08	6	0.85	-21.45	0.24
Pipe M4854	701.43	6	0.85	29.86	0.34
Pipe M4855	487.07	6	0.85	20.86	0.24
Pipe M4856	312.52	6	0.85	26.66	0.3
Pipe M4857	1046.89	6	0.85	15.3	0.17
Pipe M4858	1088.16	6	0.85	117.89	1.34
Pipe M4859	284.37	6	0.85	189.82	2.15
Pipe M4860	1101.43	6	0.85	152.29	1.73
Pipe M4861	244.83	6	0.85	136.47	1.55
Pipe M4862	506.39	6	0.85	40	0.45
Pipe M4863	385.71	6	0.85	-96.47	1.09
Pipe M4864	74.97	6	0.85	0	0
Pipe M4865	115.14	12	0.85	615.32	1.75
Pipe M4866	214.81	6	0.85	177.94	2.02
Pipe M4867	184.73	6	0.85	0	0
Pipe M4868	281.2	6	0.85	-100.53	1.14
Pipe M4869	103.82	6	0.85	0	0
Pipe M4870	306.36	6	0.85	69.14	0.78
Pipe M4871	333.19	6	0.85	69.13	0.78
Pipe M4872	199.54	6	0.85	70.84	0.8
Pipe M4873	621.26	6	0.85	36.7	0.42
Pipe M4874	125.89	6	0.85	-67	0.76
Pipe M4875	322.34	6	0.85	-30.3	0.34
Pipe M4876	202.35	6	0.85	25.4	0.29
Pipe M4877	331.23	6	0.85	34.13	0.39
Pipe M4879	475.13	6	0.85	3.74	0.04
Pipe M4880	201.45	6	0.85	23.46	0.27
Pipe M4881	494.13	6	0.85	-4.9	0.06
Pipe M4882	212.86	6	0.85	18.55	0.21
Pipe M4883	308.19	6	0.85	-19.72	0.22
Pipe M4884	232.24	6	0.85	28.53	0.32
Pipe M4885	428.43	6	0.85	16.82	0.19
Pipe M4886	216.79	6	0.85	35.38	0.4
Pipe M4888	250.9	6	0.85	48.57	0.55
Pipe M4889	1176.37	6	0.85	-69.11	0.78
Pipe M4890	1628.46	6	0.85	12.2	0.14
Pipe M4891	148.68	6	0.85	0	0
Pipe M4892	319.67	6	0.85	5.8	0.07
Pipe M4894	288.2	6	0.85	-31.5	0.36
Pipe M4895	230.36	6	0.85	-205.63	2.33
Pipe M4896	294.67	6	0.85	153.1	1.74
Pipe M4897	760.9	6	0.85	34.01	0.39
Pipe M4899	677.32	6	0.85	-52.53	0.6
Pipe M4903	219.96	12	0.85	-437.38	1.24
Pipe M4904	514.96	10	0.85	-151.8	0.62

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M4905	331.23	6	0.85	105.02	1.19
Pipe M4906	1471.7	6	0.85	-54.72	0.62
Pipe M4907	1014.93	6	0.85	-30.4	0.34
Pipe M4909	144.64	6	0.85	55.74	0.63
Pipe M4910	337.19	6	0.85	240.98	2.73
Pipe M4911	473.69	12	0.85	-779.83	2.21
Pipe M4912	428.69	12	0.85	-733.84	2.08
Pipe M4913	340.42	8	0.85	-45.99	0.29
Pipe M4914	1090.05	6	0.85	234.46	2.66
Pipe M4915	678.95	8	0.85	188.46	1.2
Pipe M4916	840.41	8	0.85	133.46	0.85
Pipe M4917	563.54	6	0.85	-152.45	1.73
Pipe M4918	611.98	8	0.85	-88.46	0.56
Pipe M4919	170.04	6	0.85	-32	0.36
Pipe M4920	118.81	6	0.85	-43.72	0.5
Pipe M4921	406.81	6	0.85	11.72	0.13
Pipe M4922	155.84	6	0.85	-6	0.07
Pipe M4923	186.37	6	0.85	30.63	0.35
Pipe M4925	193.21	6	0.85	23.47	0.27
Pipe M4926	133.52	6	0.85	5.72	0.06
Pipe M4927	304.9	6	0.85	7.16	0.08
Pipe M4928	279.76	6	0.85	108.8	1.23
Pipe M4929	135.67	6	0.85	29.19	0.33
Pipe M4930	575.66	6	0.85	-8.13	0.09
Pipe M4931	279.03	6	0.85	8.13	0.09
Pipe M4933	417.15	6	0.85	15	0.17
Pipe M4936	2886.07	12	0.85	437.38	1.24
Pipe M4937	344.01	12	0.85	-210.07	0.6
Pipe M4940	100.1	12	0.85	1241.46	3.52
Pipe M4941	278.62	12	0.85	1241.46	3.52
Pipe M4942	1619.15	12	0.85	1241.46	3.52
Pipe M4946	263.53	6	0.85	149.01	1.69
Pipe M4953	273.7	6	0.85	-47.53	0.54
Pipe M4972	325.26	6	0.85	32.23	0.37
Pipe M4973	1054.86	6	0.85	-11.64	0.13
Pipe M4975	291.19	6	0.85	20.6	0.23
Pipe M4976	692.55	6	0.85	-8.36	0.09
Pipe M4983	184.08	6	0.85	61	0.69
Pipe M4984	375.76	6	0.85	119.09	1.35
Pipe M4989	525.66	6	0.85	48.25	0.55
Pipe M4998	214.82	6	0.85	11.71	0.13
Pipe M4999	367.29	6	0.85	31.62	0.36
Pipe M5000	271.56	6	0.85	-21.84	0.25
Pipe M5001	293.3	6	0.85	-48.57	0.55
Pipe M5002	246.48	6	0.85	52.53	0.6
Pipe M5003	224.29	6	0.85	52.53	0.6
Pipe M5009	772.69	12	0.85	-223.07	0.63

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M5014	72.88	12	0.85	733.87	2.08
Pipe M5017	676.01	6	0.85	-27.5	0.31
Pipe M5019	779.75	6	0.85	-45	0.51
Pipe M5020	96.35	6	0.85	-82.39	0.93
Pipe M5021	76.96	6	0.85	-87.39	0.99
Pipe M5022	123.81	6	0.85	-101.11	1.15
Pipe M5023	92.56	6	0.85	-101.11	1.15
Pipe M5030	530.9	12	0.85	207.07	0.59
Pipe M5102	49.73	6	0.85	262.43	2.98
Pipe M5200	215.68	6	0.85	-83.43	0.95

DW Peak Hourly Flow Scenario with Fire (550gpm)
Model Results - Updated June 2022

Network Table - Nodes

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Head ft	Pressure psi
Junc M101	5112	0	0	5326.49	92.94
Junc M102	5122	50	40	5327.36	88.98
Junc M103	5100	137	109.6	5326.95	98.34
Junc M104	5123	8	6.4	5330.08	89.73
Junc M105	5150	46	36.8	5330.1	78.04
Junc M106	5148	0	0	5331.35	79.44
Junc M107	5043	9.5	7.6	5197.39	66.9
Junc M108	4975	2	1.6	5197.98	96.62
Junc M109	5041	0	0	5327.26	124.04
Junc M110	5025	0	0	5327.25	130.97
Junc M111	5074	0	0	5327.31	109.76
Junc M112	5067	5	4	5327.27	112.78
Junc M113	5059	0	0	5327.26	116.24
Junc M114	5079	67	53.6	5327.2	107.54
Junc M115	5035	0	0	5328.35	127.11
Junc M116	5035	0	0	5197.38	70.36
Junc M117	5069	18.5	14.8	5334.38	114.99
Junc M118	5135	0	0	5333.13	85.85
Junc M119	5146	0	0	5333.13	81.08
Junc M120	5167	0	0	5329.89	70.58
Junc M121	5144	0	0	5329.78	80.5
Junc M122	5134	0	0	5329.78	84.83
Junc M123	5080	0	0	5328.27	107.57
Junc M125	5163	0	0	5331.51	73.01
Junc M126	5073	104	83.2	5326.06	109.65
Junc M127	4952	0	0	5177.03	97.51
Junc M128	4970	0	0	5177.02	89.7
Junc M129	5165	32	25.6	5324.91	69.29
Junc M130	5154	0	0	5324.93	74.06
Junc M131	5129	0	0	5324.92	84.89
Junc M132	5149	6	4.8	5324.92	76.23
Junc M133	5121	0	0	5324.92	88.36
Junc M134	5130	0	0	5324.92	84.46
Junc M135	5135	3	2.4	5334.21	86.32
Junc M137	4969	0	0	5341.71	161.5
Junc M161	5070	10	8	5334.4	114.57
Junc M162	5110	4	3.2	5333.73	96.94
Junc M163	5148	0	0	5329.89	78.81
Junc M164	5115	45	36	5329.65	93.01
Junc M165	5130	0	0	5329.66	86.51
Junc M166	5105	0	0	5329.66	97.35
Junc M167	5076	0	0	5327.78	109.09

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Head ft	Pressure psi
Junc M168	5088	0	0	5328.94	104.4
Junc M169	5098	13	10.4	5330.73	100.84
Junc M170	5066	40	32	5328.56	113.77
Junc M175	5026	62	49.6	5327.7	130.73
Junc M176	5034	0	0	5328.12	127.44
Junc M182	5028	18	14.4	5197.38	73.39
Junc M184	5050	5	4	5197.44	63.89
Junc M185	5031	0	0	5197.41	72.1
Junc M192	4995	5	4	5197.41	87.71
Junc M194	5005	0	0	5197.39	83.36
Junc M195	5020	64	51.2	5197.38	76.86
Junc M198	4999	2	1.6	5197.39	85.96
Junc M199	4990	26	20.8	5197.38	89.86
Junc M200	4975	13	10.4	5197.38	96.36
Junc M2000	5122	0	0	5333.76	91.76
Junc M201	5144	61	48.8	5329.61	80.43
Junc M202	5073	0	0	5327.38	110.22
Junc M203	5082	0	0	5327.24	106.26
Junc M207	5046	0	0	5327.27	121.87
Junc M209	5059	0	0	5327.28	116.25
Junc M210	5036	0	0	5327.26	126.2
Junc M211	5022	0	0	5327.26	132.27
Junc M212	5016	67	53.6	5327.23	134.86
Junc M213	5005	0	0	5198.55	83.86
Junc M214	4991	0	0	5198.48	89.9
Junc M215	4987	30	24	5198.42	91.61
Junc M216	4999	0	0	5198.48	86.43
Junc M220	5104	13	10.4	5334.26	99.77
Junc M225	5005	0	0	5178.09	75
Junc M226	5012	0	0	5323.58	135.01
Junc M227	5061	28	22.4	5183.32	53
Junc M2271	5061	28	22.4	5323.48	113.73
Junc M228	5059	27.5	22	5176.37	50.86
Junc M2281	5059	131	104.8	5323.57	114.64
Junc M230	5040	45	36	5175.82	58.85
Junc M231	5059	0	0	5197.47	60
Junc M232	5063	5	4	5334.37	117.59
Junc M235	5017	0	0	5327.15	134.39
Junc M236	5014	0	0	5198.63	80
Junc M250	5120	0	0	5333.6	92.55
Junc M45	4860	115	92	5064.64	88.67
Junc M5050	4976	0	0	5340.63	157.99
Junc M5051	5163	0	0	5333.85	74.03
Junc M53	5112	0	0	5324.92	92.26
Junc M54	5083	0	0	5324.67	104.71

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Head ft	Pressure psi
Junc M55	4832	802.5	642	5063.67	100.38
Junc M555	5055	15	12	5170.42	50.01
Junc M556	5061	0	0	5323.23	113.62
Junc M56	5063	48	38.4	5324.54	113.33
Junc M57	5107	14	11.2	5324.86	94.4
Junc M59	4842	115	92	5068.99	98.35
Junc M60	5144	0	0	5324.95	78.41
Junc M62	5077	15	12	5324.83	107.39
Junc M620	5040	0	0	5325.11	123.54
Junc M65	5063	0	0	5328.62	115.09
Junc M67	5069	9	7.2	5197.4	55.64
Junc M69	5001	0	0	5170.43	73.41
Junc M73	5140	10	8	5326.7	80.9
Junc M74	5018	0	0	5323.76	132.49
Junc M75	5047	0	0	5324.52	120.25
Junc M76	5065	0	0	5325.09	112.7
Junc M77	5164	16	12.8	5325.85	70.13
Junc M78	5112	20	16	5325.1	92.34
Junc M79	5128	10	8	5327.12	86.28
Junc M81	5103	4	3.2	5325.86	96.57
Junc M82	5052	0	0	5325.89	118.68
Junc M83	5041	14	11.2	5325.11	123.1
Junc M84	4984	0	0	5175.94	83.17
Junc M87	4995	27.5	22	5176.42	78.61
Junc M90	4938	167	133.6	5175.73	103.01
Junc M96	5062	0	0	5326.03	114.4

DW Peak Hourly Flow Scenario with Fire (550gpm)
Model Results - Updated June 2022

Network Table - Links

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M2003	2182.25	12	0.85	237.57	0.67
Pipe M2059	1987.85	8	0.85	201.73	1.29
Pipe M3030	338.52	6	0.85	-81	0.92
Pipe M4500	399.87	6	0.85	103.44	1.17
Pipe M4751	1788.9	8	0.85	365.36	2.33
Pipe M4771	589.76	8	0.85	273.36	1.74
Pipe M4775	283.65	6	0.85	-12	0.14
Pipe M4776	1518.24	6	0.85	145.93	1.66
Pipe M4777	1818.29	8	0.85	-368.64	2.35
Pipe M4778	223.55	12	0.85	-1226.78	3.48
Pipe M4779	864.28	6	0.85	68.35	0.78
Pipe M47801	42.85	6	0.85	0	0
Pipe M4782	203.74	6	0.85	-29.95	0.34
Pipe M4784	164.85	8	0.85	76.39	0.49
Pipe M4788	297.09	6	0.85	-60.97	0.69
Pipe M4789	284.87	6	0.85	-91.62	1.04
Pipe M4797	233.85	6	0.85	-86.78	0.98
Pipe M4798	596.92	6	0.85	-109.97	1.25
Pipe M4799	1305.71	6	0.85	30.66	0.35
Pipe M4800	323.33	12	0.85	906.38	2.57
Pipe M4801	1222.77	6	0.85	77.33	0.88
Pipe M4803	351.65	12	0.85	-916.88	2.6
Pipe M4804	288.81	12	0.85	-886.22	2.51
Pipe M4805	1048.24	6	0.85	7.19	0.08
Pipe M4806	1658.03	8	0.85	12.88	0.08
Pipe M4811	535.94	8	0.85	258.91	1.65
Pipe M4818	1775.53	12	0.85	-946.78	2.69
Pipe M4826	829.07	6	0.85	0.55	0.01
Pipe M4827	581.15	6	0.85	9.85	0.11
Pipe M4828	250.32	6	0.85	-178.15	2.02
Pipe M4829	251.06	12	0.85	-1103.05	3.13
Pipe M4830	429.53	12	0.85	-1075.1	3.05
Pipe M4832	794.95	6	0.85	-41.94	0.48
Pipe M4833	231.89	6	0.85	73.13	0.83
Pipe M4834	666.09	6	0.85	-111.98	1.27
Pipe M4835	996.42	6	0.85	-10.79	0.12
Pipe M4837	276.45	6	0.85	171.37	1.94
Pipe M4838	388.91	6	0.85	115.07	1.31
Pipe M4839	236.62	6	0.85	48.31	0.55
Pipe M4846	1853.78	10	0.85	-467.68	1.91
Pipe M4847	296.51	6	0.85	18.34	0.21
Pipe M4848	521	6	0.85	249.51	2.83

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M4849	674.21	6	0.85	-237.57	2.7
Pipe M4850	683.02	10	0.85	-522.82	2.14
Pipe M4851	390.17	6	0.85	-20.22	0.23
Pipe M4852	680.07	6	0.85	14.8	0.17
Pipe M4853	214.98	6	0.85	-62.15	0.71
Pipe M4854	701.43	6	0.85	19.91	0.23
Pipe M4855	487.07	6	0.85	12.71	0.14
Pipe M4856	312.52	6	0.85	15.45	0.18
Pipe M4857	1046.89	6	0.85	10.34	0.12
Pipe M4858	1088.16	6	0.85	97.5	1.11
Pipe M4859	284.37	6	0.85	158.62	1.8
Pipe M4860	1101.43	6	0.85	126.53	1.44
Pipe M4861	244.83	6	0.85	113	1.28
Pipe M4862	506.39	6	0.85	32	0.36
Pipe M4863	385.71	6	0.85	-81	0.92
Pipe M4864	74.97	6	0.85	0	0
Pipe M4865	109.52	12	0.85	668.75	1.9
Pipe M4866	220.11	6	0.85	145.93	1.66
Pipe M4867	184.73	6	0.85	0	0
Pipe M4868	281.2	6	0.85	-119.98	1.36
Pipe M4869	103.82	6	0.85	0	0
Pipe M4870	306.36	6	0.85	56.44	0.64
Pipe M4871	333.19	6	0.85	56.43	0.64
Pipe M4872	199.54	6	0.85	59.22	0.67
Pipe M4873	621.26	6	0.85	30.14	0.34
Pipe M4874	125.89	6	0.85	-53.6	0.61
Pipe M4875	322.34	6	0.85	-23.46	0.27
Pipe M4876	202.35	6	0.85	21	0.24
Pipe M4877	331.23	6	0.85	29.08	0.33
Pipe M4879	475.13	6	0.85	4.08	0.05
Pipe M4880	201.45	6	0.85	19.45	0.22
Pipe M4881	494.13	6	0.85	-2.46	0.03
Pipe M4882	212.86	6	0.85	16.99	0.19
Pipe M4883	308.19	6	0.85	-15.37	0.17
Pipe M4884	232.24	6	0.85	25.52	0.29
Pipe M4885	428.43	6	0.85	12.42	0.14
Pipe M4886	216.79	6	0.85	29.41	0.33
Pipe M4888	250.9	6	0.85	44.36	0.5
Pipe M4889	1176.37	6	0.85	-66.75	0.76
Pipe M4890	1628.46	6	0.85	11.73	0.13
Pipe M4891	148.68	6	0.85	0	0
Pipe M4892	319.67	6	0.85	2.67	0.03
Pipe M4894	288.2	6	0.85	-30.8	0.35
Pipe M4895	230.36	6	0.85	-172.15	1.95
Pipe M4896	294.67	6	0.85	128.33	1.46

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M4897	760.9	6	0.85	28.23	0.32
Pipe M4899	677.32	6	0.85	-43.82	0.5
Pipe M4903	219.96	12	0.85	-522.82	1.48
Pipe M4904	514.96	10	0.85	-256.31	1.05
Pipe M4905	331.23	6	0.85	112.88	1.28
Pipe M4906	1471.7	6	0.85	-75.34	0.85
Pipe M4907	1014.93	6	0.85	-64.58	0.73
Pipe M4909	144.64	6	0.85	105.02	1.19
Pipe M4910	332.07	6	0.85	-224.02	2.54
Pipe M4911	473.69	12	0.85	-1034.85	2.94
Pipe M4912	428.69	12	0.85	-994.21	2.82
Pipe M4913	340.42	8	0.85	-40.64	0.26
Pipe M4914	1115.81	6	0.85	241.37	2.74
Pipe M4915	678.95	8	0.85	200.72	1.28
Pipe M4916	840.41	8	0.85	156.72	1
Pipe M4917	558.26	6	0.85	166.95	1.89
Pipe M4918	611.98	8	0.85	-120.72	0.77
Pipe M4919	170.04	6	0.85	-25.6	0.29
Pipe M4920	118.81	6	0.85	-38.28	0.43
Pipe M4921	406.81	6	0.85	12.68	0.14
Pipe M4922	155.84	6	0.85	-4.8	0.05
Pipe M4923	186.37	6	0.85	38.11	0.43
Pipe M4925	193.21	6	0.85	-3.05	0.03
Pipe M4926	133.52	6	0.85	7.88	0.09
Pipe M4927	304.9	6	0.85	41.15	0.47
Pipe M4928	279.76	6	0.85	89.49	1.02
Pipe M4929	135.67	6	0.85	4.84	0.05
Pipe M4930	575.66	6	0.85	-7.63	0.09
Pipe M4931	279.03	6	0.85	7.63	0.09
Pipe M4933	410.95	6	0.85	12	0.14
Pipe M4936	2887.42	12	0.85	522.82	1.48
Pipe M4937	337.34	12	0.85	-239.97	0.68
Pipe M4940	100.1	12	0.85	1238	3.51
Pipe M4941	281.85	12	0.85	1238	3.51
Pipe M4942	1623.29	12	0.85	1238	3.51
Pipe M4946	263.53	6	0.85	124.81	1.42
Pipe M4953	273.7	6	0.85	-30.54	0.35
Pipe M4972	325.26	6	0.85	20.2	0.23
Pipe M4973	1054.86	6	0.85	-7.62	0.09
Pipe M4975	291.19	6	0.85	12.58	0.14
Pipe M4976	692.55	6	0.85	-8.77	0.1
Pipe M4983	184.08	6	0.85	48.8	0.55
Pipe M4984	375.76	6	0.85	100.1	1.14
Pipe M4989	525.66	6	0.85	40.89	0.46
Pipe M4998	214.82	6	0.85	13.1	0.15

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M4999	367.29	6	0.85	24.19	0.27
Pipe M5000	287.17	6	0.85	17.95	0.2
Pipe M5001	293.3	6	0.85	-44.36	0.5
Pipe M5002	246.48	6	0.85	47.99	0.54
Pipe M5003	224.29	6	0.85	47.99	0.54
Pipe M5009	772.69	12	0.85	-250.37	0.71
Pipe M5014	72.88	12	0.85	994.21	2.82
Pipe M5017	674	6	0.85	-22	0.25
Pipe M5019	779.14	6	0.85	-36	0.41
Pipe M5020	96.35	6	0.85	-54.45	0.62
Pipe M5021	76.96	6	0.85	-58.45	0.66
Pipe M5022	123.81	6	0.85	-92.35	1.05
Pipe M5023	92.56	6	0.85	-92.35	1.05
Pipe M5030	535.8	12	0.85	237.57	0.67
Pipe M5102	36.78	6	0.85	263.77	2.99
Pipe M5200	231.59	6	0.85	-54.76	0.62

SKYE
AREA PLAN

PRESSURIZED IRRIGATION SECTION

(HAL Project No.: 432.02.100)

REGISTERED PROFESSIONAL ENGINEER
No. 168241
RICHARD M. NOBLE
7/14/2022
STATE OF UTAH

July 2022

HANSEN ALLEN & LUCE INC
ENGINEERS

INTRODUCTION

The pressurized irrigation element of the Skye Area Plan includes all of the infrastructure needed to provide a reliable supply of irrigation water to 147 irrigated acres to be located adjacent to the Texas Instruments (formerly Micron) facility in Lehi, Utah. The plan also provides for an additional 249 irrigated acres associated with future development not included in this area plan but to be addressed in future area plan amendments. The system includes a well, storage reservoir, booster pump station, pipelines, and pressure reducing stations (see Figures 1 and 2). In addition to irrigation water, the system will provide fire protection for residential units within the development.

Water Source

The pressurized irrigation water source for the Skye Area Plan includes a single new well to be constructed at approximately 1500 North and 1200 East (see Figure 2). The well will have an equipped flow capacity of 1,388 gallons per minute (gpm). Of this capacity, 516 gpm is allocated to this area plan and 872 gpm is allocated to future area plan amendments. During construction of the well, a sanitary seal will be installed outside the first 100 feet of well casing to allow for future flexibility of use for the well in case it needs to be used as a drinking water source.

Offsite Transmission Pipeline

The new well will connect to the existing 12-inch diameter pipeline in 1200 East (see Figure 2).

Booster Pump Station

A new 1,388 gpm booster pump station will be constructed downhill from the existing Lower Hills Reservoir to provide lift into the upper zone of Skye Area (see Figure 1). An additional outlet with an appropriately sized screen will be provided at the Low Hills reservoir will be required to feed the booster pump station. The booster pump will be designed to operate concurrently with the well pump so that when the well pump is turned on the booster pump will also turn on. Through this method of operation the Skye Area will not need to rely on storage capacity from the Lower Hills Pond. Concurrent operation of the well pump and the booster pump will also avoid overtaxing the existing transmission/distribution pipeline system

Storage Pond

A new 1.3-million-gallon (4.0 acre-feet) water storage pond will be constructed to north of the Skye Area. Of this storage capacity, 923,000 gallons will be provided for this area plan and the remaining 377,000 gallons will be provided for a future plan amendment. The elevation of the overflow will match the overflow elevation of the existing Seasons P.I. Reservoir (Elev. 5332 ft.), which is located west of the Skye Area.

Pressure Reducing Stations

The plan includes six new pressure reducing stations and 3 existing pressure reducing stations that will control pressures in upper, middle and lower pressure zones. The pressure reducing stations will use a 20-foot by 18-foot buried concrete vault that will contain valves for both the culinary water system and the pressurized irrigation system. The vaults will be constructed outside the street right-of-way in a public utility easement according to Lehi City standards.

Distribution Pipelines

Distribution pipelines ranging from 8-inches to 16-inches in diameter will provide for distribution of water throughout the Skye Area in accordance with Lehi City pressure requirements (see Figures 1, 3, and 4). Distribution pipelines 12 inches in diameter and smaller will use PVC C-900 pipe materials for all pipelines within Lehi City street rights-of-way. Pipelines 16 inches in diameter and pipelines constructed within easements on privately-owned land will use Class 350 Ductile Iron Pipe. The following are the pipe numbers for these ductile iron pipes: M2002, M2003, M5320, M3030, M4500, and M5400.

Project Phasing

The long-term plan for the Skye Area includes three phases as shown in Figure 5. Phase 1 represents this area plan and includes 147 irrigated acres. Phase 2 represents a future area plan amendment that will contain an area to be addressed in a boundary adjustment between Lehi and Draper Cities and includes 69 irrigated acres. Phase 3 is a long-term future phase that is located north on Phases 1 and 2 and includes 180 irrigated acres. Future area plan amendments will be required for Phases 2 and 3. However, capacity for these future phases has been included in determining source, transmission, booster pump, and storage (Phase 2 only) capacities as listed in Table 1.

Within Phase 1 an interim phase of development will occur. The plan outlined in this document represents the long-range plan for the culinary water system. However, construction of these facilities will likely take 1 to 2 years to accomplish. Lehi City has agreed that, on an interim basis, 51.59 irrigated acres will be allowed to be platted and occupied in the Skye area based on available existing capacity in the Seasons Reservoir and the Sand Pit Well.

Certain other Lehi City water system infrastructure projects that are currently in progress must also be completed before this interim development can proceed. These improvements include re-equipping the Sand Pit Well, construction of the Vialletto Pressure Irrigation Reservoir and Booster Pump Station, construction of the Flight Park Pressure Irrigation Reservoir and Booster Pump Station, and construction of the 1200 East Culinary Water Booster Pump Station. Completion of the long-range source, transmission, booster pumps, and storage outlined in this plan is required before development beyond the interim number of ERUs can occur.

Table 1 - Micron Area Pressurized Irrigation Water System
Design Criteria and System Requirements (Results)

	Lehi City Design Criteria	Results	Notes
Irrigated Acres		147	Phase 1 Development (this area plan)
		69	Phase 2 Development (boundary adjustment between Lehi and Draper)
		180	Phase 3 Development (long-term future)
		397 irr. acres	Total of 3 Phases
Average Flow:	3.5 gpm/acre	516 gpm	Phase 1 Development (this area plan)
		242 gpm	Phase 2 Development (boundary adjustment between Lehi and Draper)
		630 gpm	Phase 3 Development (long-term future)
		1,388 gpm	Total of 3 Phases
Peak Hourly Flow:	6.78 gpm/acre	1,000 gpm	Phase 1 Development (this area plan)
		469 gpm	Phase 2 Development (boundary adjustment between Lehi and Draper)
		- gpm	Phase 3 peak flow not included in this analysis
		1,469 gpm	Total of Phases 1 and 2
Irrigation Storage:	5,040 gal./acre	743,098 gal.	Phase 1 Development (this area plan)
		348,768 gal.	Phase 2 Development (boundary adjustment between Lehi and Draper)
		- gal.	Phase 3 storage not included in this analysis
		1,091,866 gal.	Total of Phases 1 and 2
Source:	**3.5 gpm/acre**	516 gpm	Phase 1 Development (this area plan)
		242 gpm	Phase 2 Development (boundary adjustment between Lehi and Draper)
		630 gpm	Phase 3 Development (long-term future)
		1,388 gpm	Total of 3 Phases
Fire Storage:	1,500 gpm - 2 hrs.	180,000 gal.	Assumes all commercial and civic buildings are sprinklered
Total Storage		1,271,866 gal.	Total does not include storage for north area (future development)
Minimum Pressure	50 psi at peak hourly flow 20 psi at peak hourly flow + fire	50.02 psi 35.94 psi	at Node M92 at Node M94
Fire Flow	1,500 gpm	1,500 gpm	Residential only. Assumes all commercial and civic buildings are sprinklered

Table 2

Skye Area Plan Irrigated Acres Tabulation

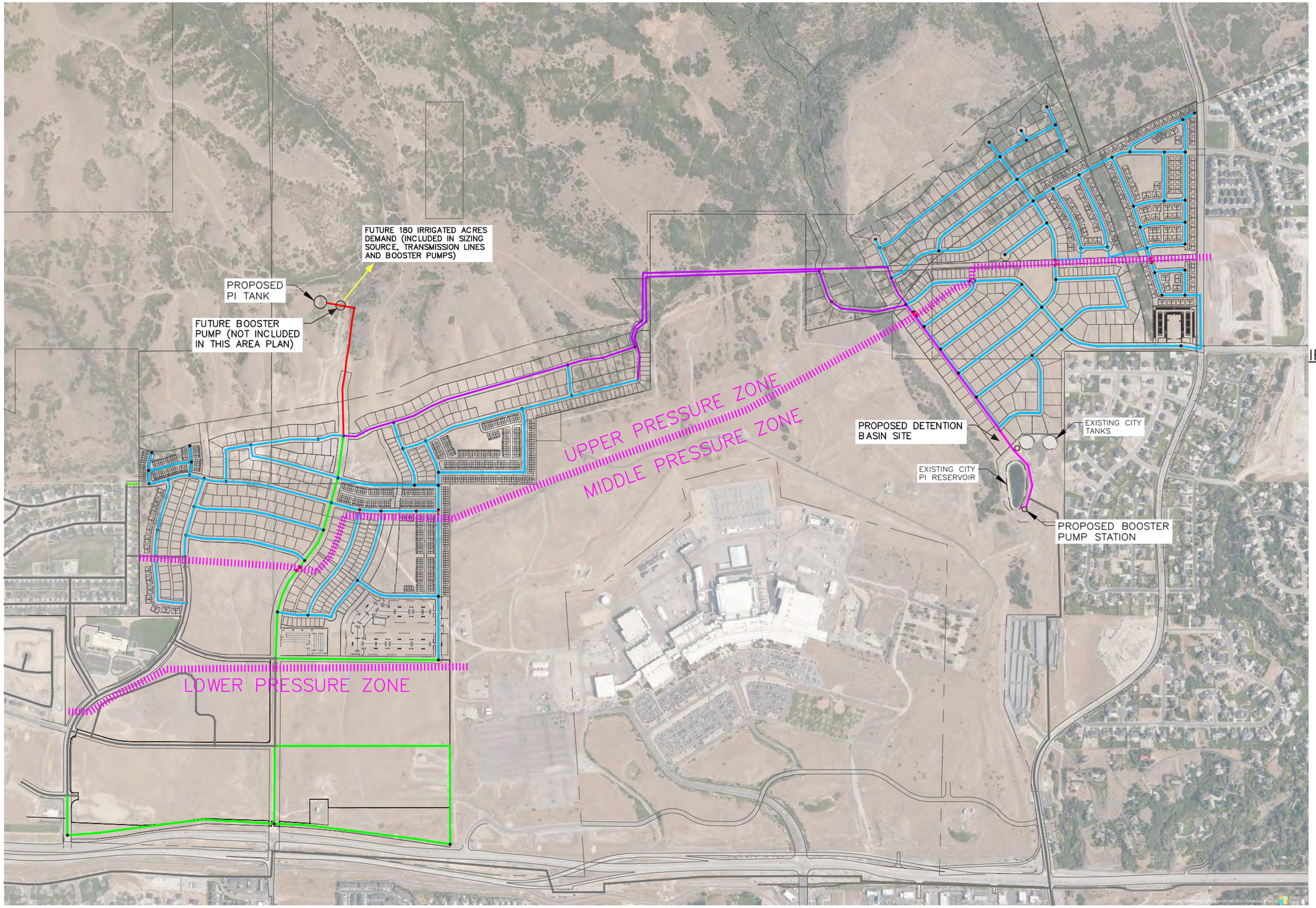
Parcel	Land Use	Net Acres	Irrigated %	Irrigated Acres
1	Open Space	3.67	0%	0.00
2	Open Space	8.9	90%	8.01
3	Gardner MU	93	25%	23.25
4	DR Horton MU	14.35	25%	3.59
6	Open Space	2.3	0%	0.00
8	Single Story Duplex	3.4	80%	2.72
9	Horton Plus (Alley)	7.5	40%	3.00
10	Church Site	20.43	40%	8.17
11	Horton Plus (Alley)	6.8	40%	2.70
12	Cottage	8.9	40%	3.56
13	Park	2.6	100%	2.60
14	Townhomes	10.5	40%	4.20
15	Alley-Load Towns	2.8	80%	2.27
16	Emerald	1.0	80%	0.80
17	Emerald	16.1	80%	12.88
18	Townhomes	3.0	40%	1.20
19	Emerald	6.7	80%	5.36
Total (Lehi - west portion)				**84.31**
20	Emerald	4.3	80%	3.44
21	Emerald	3.5	80%	2.78
22	Clubhouse	4.4	80%	3.52
23	Emerald	19.1	80%	15.28
24	Horton Plus	7.0	40%	2.80
25	Cottage	3.7	40%	1.48
26	Townhomes	12.3	40%	4.92
27	Cottage	4.6	40%	1.86
28	Park	3.0	100%	3.00
29	30' Buffer Easement	1.6	0%	0.00
Total (Draper -west portion)				**39.08**
West Total				**123.39**

Parcel	Land Use	Net Acres	Irrigated %	Irrigated Acres
30A	Estates	8.9	80%	7.12
30B	Estates	1.0	80%	0.80
31A	Emerald	9.1	80%	7.28
31B	Emerald	24.1	80%	19.28
32	Park	2.1	100%	2.10
33a	Horton Plus	3.1	40%	1.24
33b	Horton Plus	5.3	40%	2.12
34A	Cottage	1	40%	0.40
34B	Cottage	2.3	40%	0.92

35	Cottage	1.7	40%	0.68
36	Estates	2.7	80%	2.16
37	Church	3.6	40%	1.44
38	Active Adult	4.3	40%	1.72
39	Active Adult	19.37	40%	7.75
40	Park	6.7	0%	0.00
41	Active Adult	8.3	40%	3.32
42	Horton Plus	10.7	40%	4.28
43A	Cottage	1.3	40%	0.52
Total (Lehi - east portion)				**63.13**
43B	Cottage	0.13	40%	0.05
44	Cottage	0.78	40%	0.31
45	Horton Plus	1.6	40%	0.64
46	Horton Plus	12	40%	4.80
47	Park	2	0%	0.00
48	Emerald	23	80%	18.40
49	Park	6.8	0%	0.00
50	Estates	6.2	80%	4.96
51	Estates	1.2	80%	0.96
Total (Draper - east portion)				**30.12**

East Total	**93.25**

Total Development	**216.64**



N

0 500 1000
SCALE IN FEET

PROPOSED IRRIGATION LINES

- 8" DIA
- 10" DIA
- 12" DIA
- 16" DIA

EXISTING IRRIGATION LINES

- 8"–24" DIA

PRV'S

- PROPOSED
- EXISTING

FILE DATE: 1.4.2022 14:25:02 (CAH)

FILE NAME: PROJECTS\432 – DR HORTON\02.100 – MICRON PROPERTY\CAD\FIGURES\FIGURE 1 IRR.DWG

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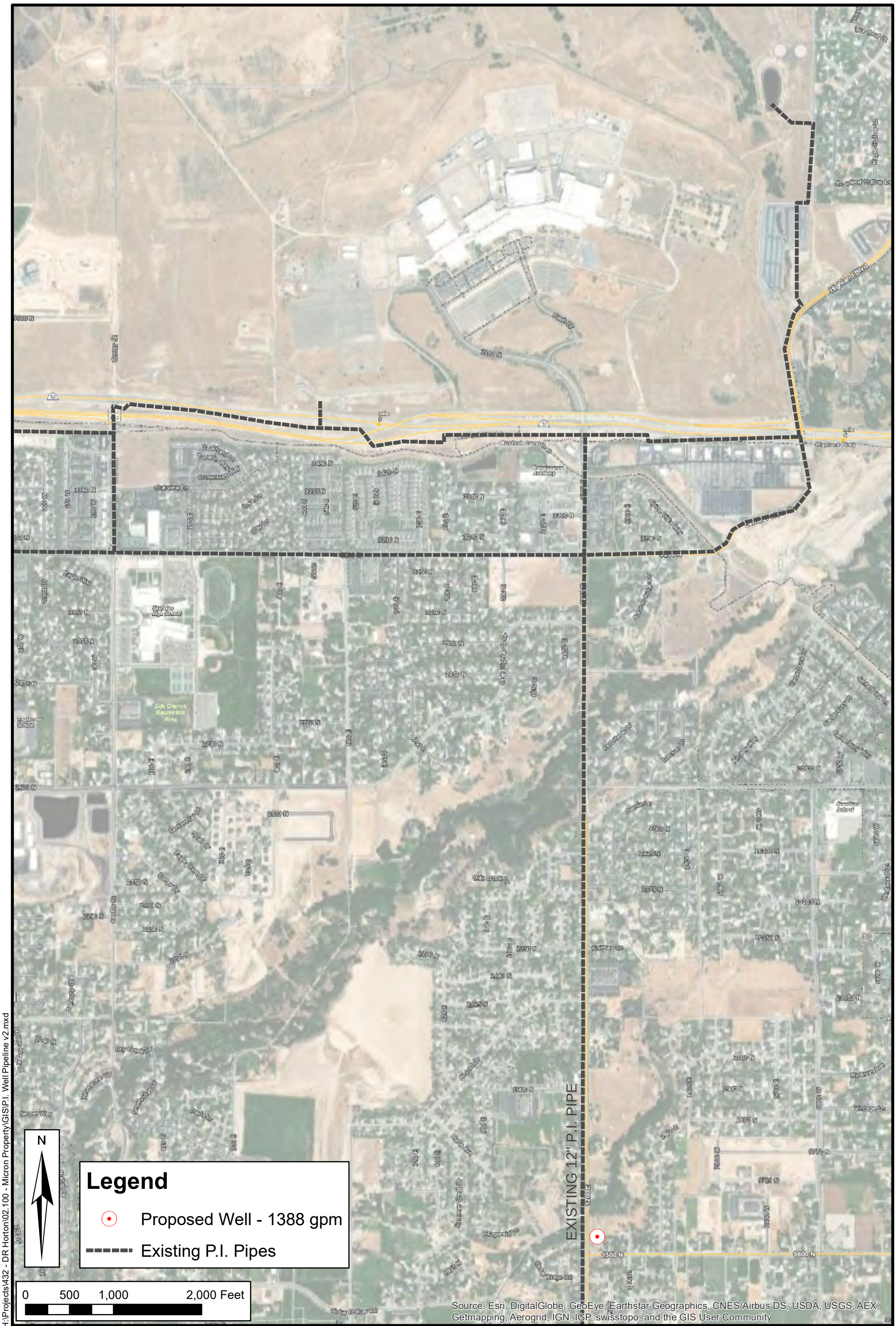
PRESSURIZED IRRIGATION – ONSITE DISTRIBUTION SYSTEM

FIGURE 1



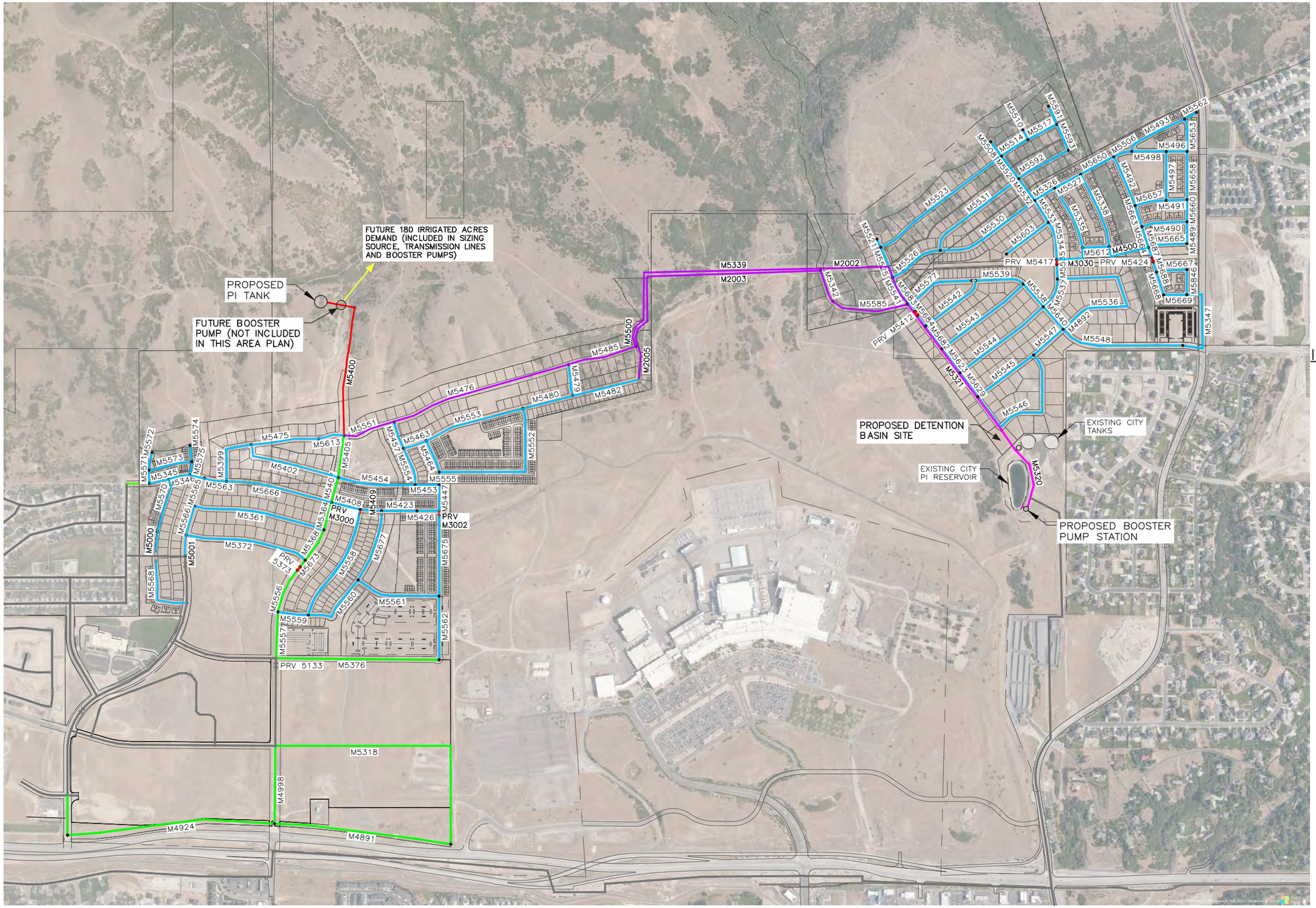
HANSEN ALLEN & LUCE inc ENGINEERS

MICRON AREA PLAN AMENDMENT

OFFSITE PRESSURIZED IRRIGATION

FIGURE 2

Date: 1/4/2022
Document Path: H:\Projects\432 - DR Horton\02.100 - Micron Property\GIS\P.I. Well Pipeline v2.mxd



FILE DATE: 1.4.2022 14:25:02 (CAH)

FILE NAME: PROJECTS\432 – DR HORTON\02.100 – MICRON PROPERTY\CAD\FIGURES\FIGURE 1 IRR.DWG

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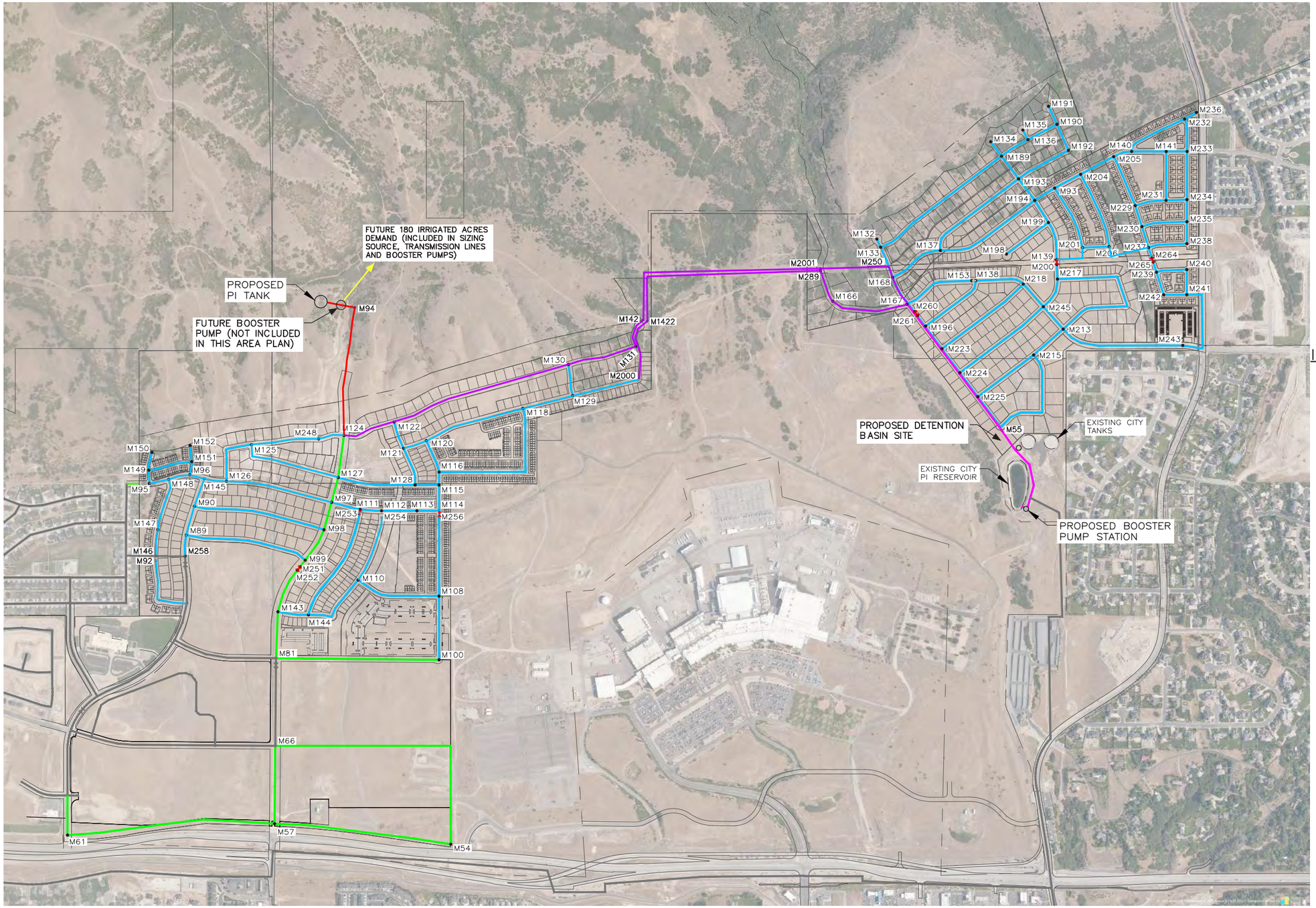
PRESSURIZED IRRIGATION – PIPE NUMBERS FROM EPANET MODEL

FIGURE 3



N

0 500 1000
SCALE IN FEET

PROPOSED IRRIGATION LINES

- 8" DIA
- 10" DIA
- 12" DIA
- 16" DIA

EXISTING IRRIGATION LINES

- 8"–24" DIA

PRV'S

- PROPOSED
- EXISTING

FILE DATE: 1.4.2022 14:25:02 (CAH)

FILE NAME: PROJECTS\432 – DR HORTON\02.100 – MICRON PROPERTY\CAD\FIGURES\FIGURE 1 IRR.DWG

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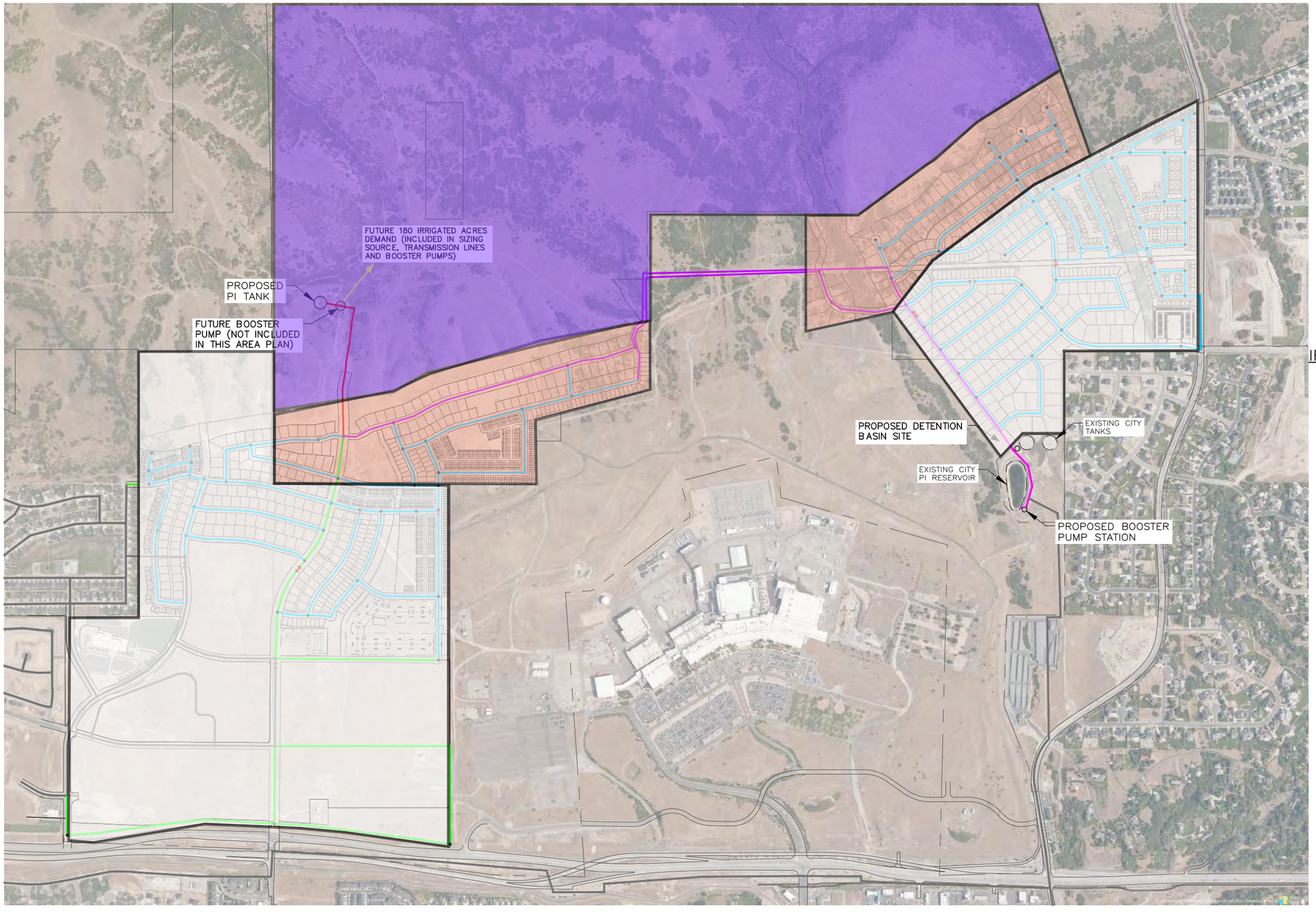
PRESSURIZED IRRIGATION – JUNCTION NUMBERS FROM EPANET MODEL

FIGURE 4



FILE DATE: 1.4.2022 14:25:02 (CAH)

FILE NAME: PROJECTS\432 – DR HORTON\02.100 – MICRON PROPERTY\CAD\FIGURES\FIGURE 1 IRR.DWG

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PRESSURIZED IRRIGATION – DEVELOPMENT PHASING

FIGURE 5

PI Peak Hourly Flow Scenario Without Fire
Model Results - Updated June 2022

Network Table - Nodes

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Head ft	Pressure psi
Junc M100	4938	2.48	24.38	5188.56	108.57
Junc M102	4952	0	0	5188.47	102.46
Junc M103	4960	0	0	5188.47	99
Junc M108	4984	0	0	5188.58	88.64
Junc M110	4995	1.8	17.7	5188.65	83.91
Junc M111	5062	0	0	5342.09	121.36
Junc M112	5060	1.57	15.43	5342.19	122.27
Junc M113	5040	0	0	5342.4	131.03
Junc M114	5039	0	0	5342.53	131.52
Junc M115	5052	0	0	5342.69	125.96
Junc M116	5075	3.3948	33.37	5342.77	116.03
Junc M118	5100	1.932	18.99	5343.17	105.37
Junc M120	5112	0	0	5342.85	100.03
Junc M121	5103	0	0	5342.85	103.93
Junc M122	5122	0	0	5342.95	95.74
Junc M124	5128	2.43	23.89	5342.83	93.09
Junc M125	5164	3.7	36.37	5342.21	77.22
Junc M126	5112	0	0	5341.75	99.55
Junc M127	5103	1.9	18.68	5342.33	103.7
Junc M128	5062	1.0212	10.04	5342.69	121.62
Junc M129	5123	1.28064	12.59	5343.82	95.68
Junc M130	5150	10.54	103.62	5343.77	83.96
Junc M131	5148	0	0	5344.12	84.98
Junc M132	5148	0	0	5345.68	85.65
Junc M133	5146	0	0	5345.68	86.52
Junc M134	5165	0	0	5344.69	77.86
Junc M135	5146	0	0	5344.63	86.07
Junc M136	5134	0	0	5344.63	91.27
Junc M137	5086	0.3588	3.53	5345.04	112.24
Junc M138	5060	1.0488	10.31	5185.82	54.52
Junc M139	5033	0	0	5344.39	134.93
Junc M140	5074	0	0	5344.14	117.05
Junc M141	5065	0	0	5344.13	120.95
Junc M142	5163	2.1	20.65	5344.23	78.53
Junc M1422	5163	0	0	5345.56	79.1
Junc M143	4978	0	0	5188.93	91.4
Junc M144	4965	0	0	5188.82	96.98
Junc M145	5116	0	0	5341.39	97.66
Junc M147	5077	0.94	9.24	5341.22	114.49
Junc M148	5127	0	0	5341.26	92.84
Junc M149	5150	0	0	5341.26	82.87
Junc M150	5164	0.828	8.14	5341.26	76.81

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Head ft	Pressure psi
Junc M151	5127	0	0	5341.29	92.85
Junc M152	5149	0	0	5341.29	83.32
Junc M153	5060	1.0488	10.31	5346.57	124.17
Junc M166	5104	3.42	33.62	5346.31	104.99
Junc M167	5070	0.276	2.71	5346.57	119.84
Junc M168	5110	0.69276	6.81	5345.93	102.23
Junc M189	5148	0	0	5344.69	85.23
Junc M190	5130	0	0	5344.56	92.97
Junc M191	5144	12.7	124.85	5344.5	86.88
Junc M192	5105	3.312	32.56	5344.58	103.81
Junc M193	5115	0	0	5344.65	99.51
Junc M194	5088	0	0	5344.53	111.15
Junc M196	5050	0	0	5185.86	58.87
Junc M198	5070	2.9532	29.03	5344.44	118.92
Junc M199	5062	0	0	5344.46	122.39
Junc M200	5033	1.449	14.25	5185.78	66.2
Junc M2000	5122	0	0	5345.41	96.8
Junc M201	5034	0	0	5344.34	134.47
Junc M204	5076	0	0	5344.26	116.24
Junc M205	5073	0	0	5344.16	117.49
Junc M206	5026	2.2908	22.52	5344.25	137.9
Junc M213	4995	2.05	20.15	5185.81	82.68
Junc M215	5000	4.9	48.17	5185.79	80.5
Junc M217	5028	0.4692	4.61	5185.78	68.37
Junc M218	5037	0	0	5185.81	64.48
Junc M223	5031	0	0	5185.82	67.08
Junc M224	5012	5.02	49.35	5185.79	75.3
Junc M225	4990	0	0	5185.79	84.83
Junc M229	5046	0	0	5344.13	129.18
Junc M230	5036	0	0	5344.11	133.51
Junc M231	5042	0	0	5344.13	130.91
Junc M232	5078	0	0	5344.13	115.31
Junc M233	5061	0	0	5344.13	122.68
Junc M234	5041	0	0	5344.12	131.34
Junc M235	5025	0	0	5344.11	138.27
Junc M236	5079	2.673	26.28	5344.13	114.88
Junc M237	5022	0	0	5344.1	139.57
Junc M238	5016	2.67306	26.28	5344.1	142.17
Junc M239	5005	0	0	5187.03	78.87
Junc M240	4999	0	0	5186.97	81.45
Junc M241	4987	1.1868	11.67	5186.93	86.63
Junc M242	4991	0	0	5186.98	84.92
Junc M243	4972	1	9.83	5186.5	92.94
Junc M245	5024	13.3	130.75	5185.78	70.1
Junc M248	5140	2.37	23.3	5342.62	87.79

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Head ft	Pressure psi
Junc M250	5120	0	0	5345.81	97.84
Junc M251	5012	0	0	5340.74	142.44
Junc M252	5005	11	108.14	5189.63	80
Junc M253	5053	1.863	18.32	5188.8	58.84
Junc M254	5056	2.4564	24.15	5188.64	57.47
Junc M256	5040	2.898	28.49	5188.56	64.37
Junc M260	5063	0.4278	4.21	5346.55	122.86
Junc M261	5059	0.4278	4.21	5185.93	55
Junc M264	5017	0	0	5344.02	141.7
Junc M265	5014	0	0	5187.09	75
Junc M289	5135	0.66	6.49	5346.2	91.51
Junc M54	4845	4.01	39.42	5069.1	97.1
Junc M55	4976	0	0	5354.64	164.06
Junc M57	4842	4.01	39.42	5069.1	98.4
Junc M61	4855	9.5375	93.76	5069.05	92.75
Junc M87	4950	0	0	5358.41	176.96
Junc M89	5063	1.035	10.18	5341.2	120.54
Junc M90	5083	8.9	87.5	5341.27	111.91
Junc M92	5055	0.94	9.24	5188.48	57.84
Junc M93	5077	0	0	5344.37	115.85
Junc M94	5260	124.2	180.09	5342.96	35.94
Junc M95	5141	0	0	5341.25	86.77
Junc M96	5117	0	0	5341.31	97.19

PI Peak Hourly Flow Scenario Without Fire
Model Results - Updated June 2022

Network Table - Links

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M2002	2857.09	12	0.85	-454.58	1.29
Pipe M2003	2157.42	12	0.85	324.83	0.92
Pipe M2005	527.19	12	0.85	324.83	0.92
Pipe M3030	314.42	8	0.85	-81.45	0.52
Pipe M4500	427.01	8	0.85	120.18	0.77
Pipe M4866	212.34	8	0.85	168.21	1.07
Pipe M4891	1752.34	10	0.85	0.63	0
Pipe M4924	2107.5	10	0.85	50.91	0.21
Pipe M4936	136.59	10	0.85	-42.85	0.18
Pipe M4998	545.01	10	0.85	-89.71	0.37
Pipe M5000	299.48	8	0.85	48.8	0.31
Pipe M5001	234.88	8	0.85	-21.57	0.14
Pipe M5127	176.51	12	0.85	1411.93	4.01
Pipe M5275	86.26	8	0.85	-14.57	0.09
Pipe M5308	577.31	8	0.85	-8.13	0.05
Pipe M5315	200.65	8	0.85	-14.57	0.09
Pipe M5316	1113.09	8	0.85	-6.45	0.04
Pipe M5318	2326.02	10	0.85	40.05	0.16
Pipe M5320	759.69	12	0.85	1411.93	4.01
Pipe M5321	1625.65	12	0.85	1411.93	4.01
Pipe M5326	248.15	8	0.85	167.09	1.07
Pipe M5327	272.22	8	0.85	127.74	0.82
Pipe M5332	158.36	8	0.85	-89.01	0.57
Pipe M5333	255.28	16	0.85	-523.91	0.84
Pipe M5335	649.12	8	0.85	39.35	0.25
Pipe M5338	773.23	8	0.85	21.9	0.14
Pipe M5342	369.79	12	0.85	331.32	0.94
Pipe M5345	199.52	8	0.85	-41.45	0.26
Pipe M5346	195.62	8	0.85	99.48	0.63
Pipe M5347	719.27	8	0.85	161.79	1.03
Pipe M5361	1282.21	8	0.85	-53.33	0.34
Pipe M5364	305.09	10	0.85	-518.18	2.12
Pipe M5368	335.33	10	0.85	-464.85	1.9
Pipe M5372	1212.16	8	0.85	104.75	0.67
Pipe M5376	1636.58	10	0.85	-4.73	0.02
Pipe M5399	563.87	8	0.85	-192.15	1.23
Pipe M5400	1608.99	16	0.85	343.82	0.55
Pipe M5402	1024.76	8	0.85	-67	0.43
Pipe M5405	416.05	10	0.85	417.96	1.71
Pipe M5407	252.31	10	0.85	470.72	1.92
Pipe M5408	286.06	8	0.85	-143.42	0.92
Pipe M5409	213.53	8	0.85	-143.42	0.92

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M5423	361.75	8	0.85	-158.86	1.01
Pipe M5426	213.32	8	0.85	158.86	1.01
Pipe M5447	268.97	8	0.85	-158.86	1.01
Pipe M5453	220.42	8	0.85	13.6	0.09
Pipe M5454	784.58	8	0.85	138.44	0.88
Pipe M5457	264.3	8	0.85	123.58	0.79
Pipe M5463	239.21	8	0.85	-11.29	0.07
Pipe M5464	309.55	8	0.85	102.31	0.65
Pipe M5475	668.58	8	0.85	-161.53	1.03
Pipe M5476	1840.65	12	0.85	-406.44	1.15
Pipe M5479	302.81	8	0.85	76.12	0.49
Pipe M5480	516.26	8	0.85	236.12	1.51
Pipe M5482	696.29	8	0.85	-324.83	2.07
Pipe M5485	681.11	12	0.85	-433.94	1.23
Pipe M5486	250.54	8	0.85	83.46	0.53
Pipe M5489	223.21	8	0.85	-37.16	0.24
Pipe M5490	433.75	8	0.85	0.26	0
Pipe M5491	217.11	8	0.85	20.31	0.13
Pipe M5492	512.77	8	0.85	47.42	0.3
Pipe M5493	654.73	8	0.85	-25.33	0.16
Pipe M5496	223.05	8	0.85	17.54	0.11
Pipe M5497	476.6	8	0.85	-15.54	0.1
Pipe M5498	333.02	8	0.85	33.08	0.21
Pipe M5506	189.1	8	0.85	-58.41	0.37
Pipe M5508	169.11	8	0.85	0	0
Pipe M5510	100.96	8	0.85	0	0
Pipe M5514	321.5	8	0.85	89.25	0.57
Pipe M5517	330.54	8	0.85	89.25	0.57
Pipe M5520	298.31	8	0.85	78.96	0.5
Pipe M5521	82.59	8	0.85	0	0
Pipe M5523	1509.59	8	0.85	168.21	1.07
Pipe M5525	112.84	12	0.85	622.8	1.77
Pipe M5526	551.08	8	0.85	270.31	1.73
Pipe M5530	1093.16	8	0.85	141.87	0.91
Pipe M5531	1066.21	8	0.85	124.92	0.8
Pipe M5532	275.84	8	0.85	135.71	0.87
Pipe M5533	245.34	8	0.85	110.49	0.71
Pipe M5534	377.3	8	0.85	81.45	0.52
Pipe M5535	154.39	8	0.85	-14.24	0.09
Pipe M5536	1594.91	8	0.85	-23.47	0.15
Pipe M5537	336.67	8	0.85	-4.61	0.03
Pipe M5538	309.13	8	0.85	54.05	0.35
Pipe M5539	451.9	8	0.85	34.85	0.22
Pipe M5541	312.15	12	0.85	-899.91	2.55
Pipe M5542	688.56	8	0.85	45.16	0.29

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M5543	1019.48	8	0.85	19.2	0.12
Pipe M5544	1056.04	8	0.85	11.1	0.07
Pipe M5545	699.05	8	0.85	0.54	0
Pipe M5546	1426.59	8	0.85	0.28	0
Pipe M5547	378.36	8	0.85	-47.36	0.3
Pipe M5548	1276.13	8	0.85	-151.96	0.97
Pipe M5550	220.86	12	0.85	433.94	1.23
Pipe M5551	532.92	12	0.85	-282.86	0.8
Pipe M5552	1514.84	8	0.85	-103.53	0.66
Pipe M5553	1022.28	8	0.85	-113.6	0.73
Pipe M5554	382.04	8	0.85	134.88	0.86
Pipe M5555	125.3	8	0.85	172.46	1.1
Pipe M5556	484.32	10	0.85	461.46	1.89
Pipe M5557	448.7	10	0.85	343.7	1.4
Pipe M5558	1130.72	8	0.85	-18.31	0.12
Pipe M5559	347.05	8	0.85	117.76	0.75
Pipe M5560	675.25	8	0.85	99.45	0.63
Pipe M5561	833.23	8	0.85	57.6	0.37
Pipe M5562	623.28	8	0.85	-29.11	0.19
Pipe M5563	214.08	8	0.85	282.71	1.8
Pipe M5564	157.88	8	0.85	-155.19	0.99
Pipe M5565	292.86	8	0.85	-127.52	0.81
Pipe M5566	279.22	8	0.85	93.35	0.6
Pipe M5568	690.21	8	0.85	-9.24	0.06
Pipe M5570	483.95	8	0.85	-58.04	0.37
Pipe M5571	141.36	8	0.85	47.56	0.3
Pipe M5572	160.74	8	0.85	-8.14	0.05
Pipe M5573	428.2	8	0.85	-55.7	0.36
Pipe M5574	129.22	8	0.85	0	0
Pipe M5575	144.65	8	0.85	55.71	0.36
Pipe M5577	693.86	8	0.85	10.31	0.07
Pipe M5585	720.78	12	0.85	-364.94	1.04
Pipe M5591	184.63	8	0.85	-124.85	0.8
Pipe M5592	583.69	8	0.85	68.17	0.44
Pipe M5593	315.49	8	0.85	-35.61	0.23
Pipe M5603	544.84	8	0.85	-29.03	0.19
Pipe M5612	254.28	8	0.85	120.8	0.77
Pipe M5613	272.73	8	0.85	-184.83	1.18
Pipe M5623	322.54	8	0.85	61.27	0.39
Pipe M5629	301.03	8	0.85	-0.82	0.01
Pipe M5640	289.52	8	0.85	-60.98	0.39
Pipe M5650	386.34	8	0.85	105.84	0.68
Pipe M5652	105.35	8	0.85	26.28	0.17
Pipe M5653	318.1	8	0.85	-0.95	0.01
Pipe M5657	300.86	8	0.85	4.77	0.03

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M5658	488.86	8	0.85	-16.59	0.11
Pipe M5660	216.91	8	0.85	36.9	0.24
Pipe M5663	229.22	8	0.85	42.65	0.27
Pipe M5664	209.83	8	0.85	42.39	0.27
Pipe M5665	364.02	8	0.85	-10.89	0.07
Pipe M5666	1073.71	8	0.85	-90.56	0.58
Pipe M5667	293.55	8	0.85	83.46	0.53
Pipe M5668	240.89	8	0.85	90	0.57
Pipe M5669	232.27	8	0.85	90	0.57
Pipe M5673	69.65	10	0.85	-569.6	2.33
Pipe M5675	804.56	8	0.85	-28.49	0.18
Pipe M5677	701.1	8	0.85	-24.15	0.15
Pipe M5682	260.73	8	0.85	80.48	0.51

PI Peak Hourly Flow Scenario with Fire (1500gpm)
Model Results - Updated June 2022

Network Table - Nodes

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Head ft	Pressure psi
Junc M100	4938	2.48	24.38	5173.49	102.04
Junc M102	4952	0	0	5169.1	94.07
Junc M103	4960	0	0	5169.34	90.71
Junc M108	4984	0	0	5174.56	82.57
Junc M110	4995	1.8	17.7	5176.27	78.55
Junc M111	5062	0	0	5338.05	119.61
Junc M112	5060	1.57	15.43	5338.45	120.65
Junc M113	5040	0	0	5339.2	129.64
Junc M114	5039	0	0	5339.65	130.27
Junc M115	5052	0	0	5340.2	124.88
Junc M116	5075	3.3948	33.37	5340.45	115.02
Junc M118	5100	1.932	18.99	5341.12	104.48
Junc M120	5112	0	0	5340.72	99.11
Junc M121	5103	0	0	5340.75	103.02
Junc M122	5122	0	0	5341.35	95.05
Junc M124	5128	2.43	23.89	5341.35	92.44
Junc M125	5164	3.7	36.37	5339.08	75.86
Junc M126	5112	0	0	5337.47	97.7
Junc M127	5103	1.9	18.68	5339.23	102.36
Junc M128	5062	1.0212	10.04	5340.21	120.55
Junc M129	5123	1.28064	12.59	5342.03	94.91
Junc M130	5150	10.54	103.62	5342.02	83.2
Junc M131	5148	0	0	5342.37	84.22
Junc M132	5148	0	0	5343.95	84.91
Junc M133	5146	0	0	5343.95	85.77
Junc M134	5165	0	0	5342.97	77.11
Junc M135	5146	0	0	5342.91	85.32
Junc M136	5134	0	0	5342.91	90.52
Junc M137	5086	0.3588	3.53	5343.32	111.5
Junc M138	5060	1.0488	10.31	5185.82	54.52
Junc M139	5033	0	0	5342.67	134.18
Junc M140	5074	0	0	5342.42	116.3
Junc M141	5065	0	0	5342.41	120.2
Junc M142	5163	2.1	20.65	5342.49	77.77
Junc M1422	5163	0	0	5343.82	78.35
Junc M143	4978	0	0	5179.06	87.12
Junc M144	4965	0	0	5178.05	92.32
Junc M145	5116	0	0	5336.73	95.64
Junc M147	5077	0.94	9.24	5336.59	112.48
Junc M148	5127	0	0	5336.74	90.88
Junc M149	5150	0	0	5336.77	80.93
Junc M150	5164	0.828	8.14	5336.77	74.86

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Head ft	Pressure psi
Junc M151	5127	0	0	5336.75	90.88
Junc M152	5149	0	0	5336.75	81.35
Junc M153	5060	1.0488	10.31	5344.85	123.42
Junc M166	5104	3.42	33.62	5344.58	104.24
Junc M167	5070	0.276	2.71	5344.85	119.09
Junc M168	5110	0.69276	6.81	5344.2	101.48
Junc M189	5148	0	0	5342.97	84.48
Junc M190	5130	0	0	5342.84	92.22
Junc M191	5144	12.7	124.85	5342.77	86.13
Junc M192	5105	3.312	32.56	5342.85	103.06
Junc M193	5115	0	0	5342.92	98.76
Junc M194	5088	0	0	5342.8	110.41
Junc M196	5050	0	0	5185.86	58.87
Junc M198	5070	2.9532	29.03	5342.72	118.17
Junc M199	5062	0	0	5342.73	121.64
Junc M200	5033	1.449	14.25	5185.78	66.2
Junc M2000	5122	0	0	5343.66	96.05
Junc M201	5034	0	0	5342.61	133.72
Junc M204	5076	0	0	5342.54	115.49
Junc M205	5073	0	0	5342.43	116.75
Junc M206	5026	2.2908	22.52	5342.53	137.15
Junc M213	4995	2.05	20.15	5185.81	82.68
Junc M215	5000	4.9	48.17	5185.79	80.5
Junc M217	5028	0.4692	4.61	5185.78	68.37
Junc M218	5037	0	0	5185.81	64.48
Junc M223	5031	0	0	5185.82	67.08
Junc M224	5012	5.02	49.35	5185.79	75.3
Junc M225	4990	0	0	5185.79	84.83
Junc M229	5046	0	0	5342.4	128.43
Junc M230	5036	0	0	5342.39	132.76
Junc M231	5042	0	0	5342.4	130.16
Junc M232	5078	0	0	5342.4	114.57
Junc M233	5061	0	0	5342.4	121.93
Junc M234	5041	0	0	5342.4	130.6
Junc M235	5025	0	0	5342.39	137.52
Junc M236	5079	2.673	26.28	5342.4	114.13
Junc M237	5022	0	0	5342.38	138.82
Junc M238	5016	2.67306	26.28	5342.38	141.42
Junc M239	5005	0	0	5187.03	78.87
Junc M240	4999	0	0	5186.97	81.45
Junc M241	4987	1.1868	11.67	5186.93	86.63
Junc M242	4991	0	0	5186.98	84.92
Junc M243	4972	1	9.83	5186.5	92.94
Junc M245	5024	13.3	130.75	5185.78	70.1
Junc M248	5140	2.37	23.3	5340.63	86.93

Node ID	Elevation ft	Base Demand GPM	Demand GPM	Head ft	Pressure psi
Junc M250	5120	0	0	5344.09	97.1
Junc M251	5012	0	0	5327.9	136.88
Junc M252	5005	11	108.14	5189.63	80
Junc M253	5053	1.863	18.32	5178.04	54.18
Junc M254	5056	2.4564	24.15	5176.26	52.11
Junc M256	5040	2.898	28.49	5174.53	58.29
Junc M260	5063	0.4278	4.21	5344.83	122.12
Junc M261	5059	0.4278	4.21	5185.93	55
Junc M264	5017	0	0	5342.29	140.95
Junc M265	5014	0	0	5187.09	75
Junc M289	5135	0.66	6.49	5344.47	90.76
Junc M54	4845	156.665	1540.17	5054.33	90.7
Junc M55	4976	0	0	5352.99	163.35
Junc M57	4842	4.01	39.42	5061.6	95.15
Junc M61	4855	9.5375	93.76	5062.71	90
Junc M87	4950	0	0	5356.79	176.26
Junc M89	5063	1.035	10.18	5335.45	118.05
Junc M90	5083	8.9	87.5	5335.57	109.44
Junc M92	5055	0.94	9.24	5170.44	50.02
Junc M93	5077	0	0	5342.64	115.1
Junc M95	5141	0	0	5336.78	84.83
Junc M96	5117	0	0	5336.74	95.21

PI Peak Hourly Flow Scenario with Fire (1500gpm)
Model Results - Updated June 2022

Network Table - Links

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M2002	2857.09	12	0.85	-457.2	1.3
Pipe M2003	2157.42	12	0.85	328.72	0.93
Pipe M2005	527.19	12	0.85	328.72	0.93
Pipe M3030	314.42	8	0.85	-81.45	0.52
Pipe M4500	427.01	8	0.85	120.18	0.77
Pipe M4866	212.34	8	0.85	168.17	1.07
Pipe M4891	1752.34	10	0.85	-796.96	3.26
Pipe M4924	2107.5	10	0.85	-272.93	1.11
Pipe M4936	136.59	10	0.85	-366.7	1.5
Pipe M4998	545.01	10	0.85	-563.45	2.3
Pipe M5000	299.48	8	0.85	102.61	0.65
Pipe M5001	234.88	8	0.85	-352.08	2.25
Pipe M5127	176.51	12	0.85	1418.43	4.02
Pipe M5275	86.26	8	0.85	-228.08	1.46
Pipe M5308	577.31	8	0.85	-133.87	0.85
Pipe M5315	200.65	8	0.85	-228.08	1.46
Pipe M5316	1113.09	8	0.85	-94.21	0.6
Pipe M5318	2326.02	10	0.85	743.21	3.04
Pipe M5320	759.69	12	0.85	1418.43	4.02
Pipe M5321	1625.65	12	0.85	1418.43	4.02
Pipe M5326	248.15	8	0.85	167.09	1.07
Pipe M5327	272.22	8	0.85	127.74	0.82
Pipe M5332	158.36	8	0.85	150.11	0.96
Pipe M5333	255.28	16	0.85	-1396.43	2.23
Pipe M5335	649.12	8	0.85	39.35	0.25
Pipe M5338	773.23	8	0.85	21.9	0.14
Pipe M5342	369.79	12	0.85	335.2	0.95
Pipe M5345	199.52	8	0.85	96.48	0.62
Pipe M5346	195.62	8	0.85	15.37	0.1
Pipe M5347	719.27	8	0.85	161.79	1.03
Pipe M5361	1282.21	8	0.85	208.38	1.33
Pipe M5364	305.09	10	0.85	-1278.38	5.22
Pipe M5368	335.33	10	0.85	-1486.76	6.07
Pipe M5372	1212.16	8	0.85	477.67	3.05
Pipe M5376	1636.58	10	0.85	-254.91	1.04
Pipe M5399	563.87	8	0.85	-364.85	2.33
Pipe M5400	1608.99	16	0.85	1216.34	1.94
Pipe M5402	1024.76	8	0.85	-74.85	0.48
Pipe M5405	416.05	10	0.85	884.33	3.61
Pipe M5407	252.31	10	0.85	1027.02	4.2
Pipe M5408	286.06	8	0.85	-293.45	1.87
Pipe M5409	213.53	8	0.85	-293.45	1.87

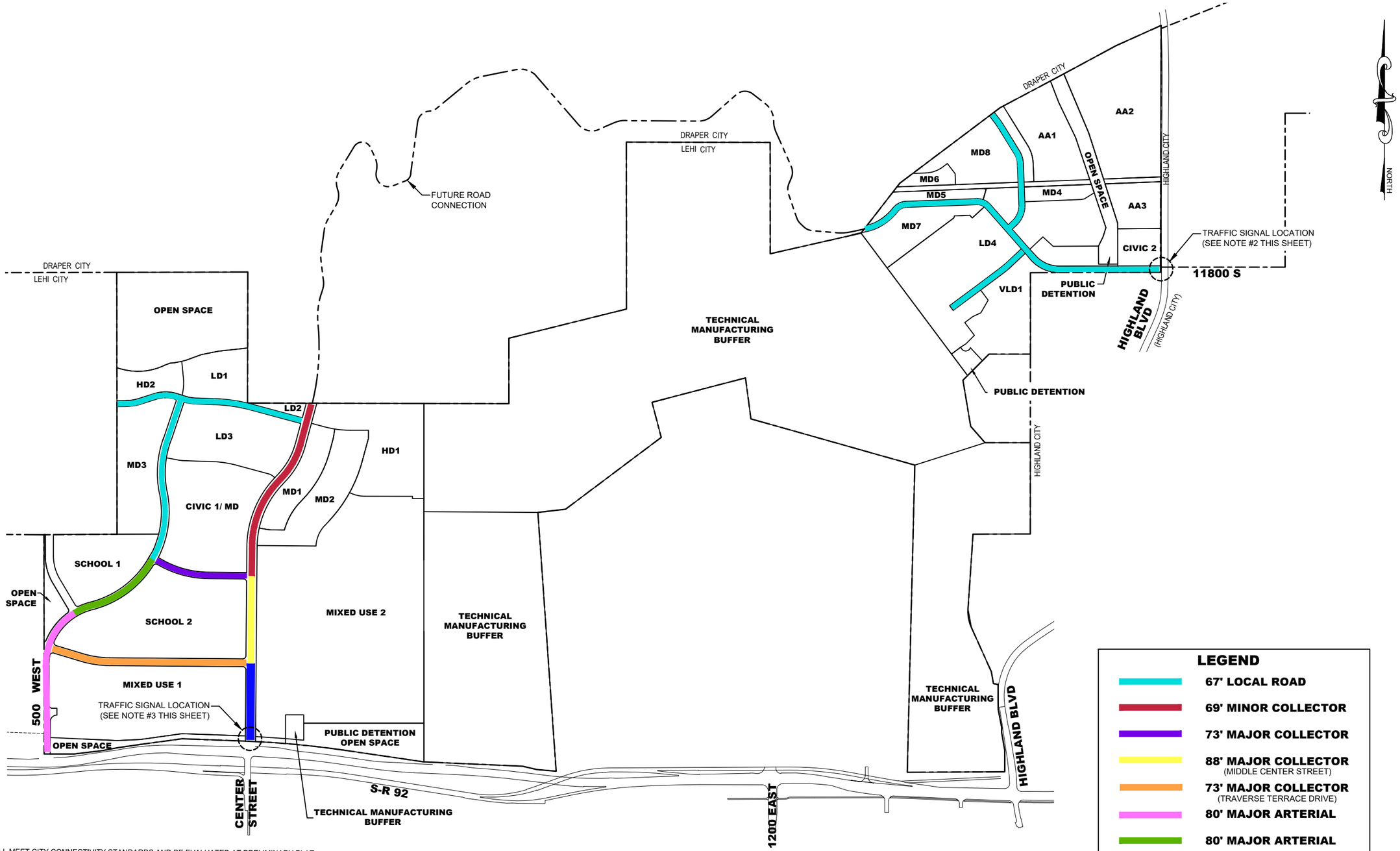
Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M5423	361.75	8	0.85	-308.88	1.97
Pipe M5426	213.32	8	0.85	308.88	1.97
Pipe M5447	268.97	8	0.85	-308.88	1.97
Pipe M5453	220.42	8	0.85	-8.31	0.05
Pipe M5454	784.58	8	0.85	236.22	1.51
Pipe M5457	264.3	8	0.85	323.38	2.06
Pipe M5463	239.21	8	0.85	68.81	0.44
Pipe M5464	309.55	8	0.85	196.9	1.26
Pipe M5475	668.58	8	0.85	-326.37	2.08
Pipe M5476	1840.65	12	0.85	-364.93	1.04
Pipe M5479	302.81	8	0.85	31.99	0.2
Pipe M5480	516.26	8	0.85	284.13	1.81
Pipe M5482	696.29	8	0.85	-328.72	2.1
Pipe M5485	681.11	12	0.85	-436.55	1.24
Pipe M5486	250.54	8	0.85	83.46	0.53
Pipe M5489	223.21	8	0.85	-37.16	0.24
Pipe M5490	433.75	8	0.85	0.26	0
Pipe M5491	217.11	8	0.85	20.31	0.13
Pipe M5492	512.77	8	0.85	47.42	0.3
Pipe M5493	654.73	8	0.85	-25.33	0.16
Pipe M5496	223.05	8	0.85	17.54	0.11
Pipe M5497	476.6	8	0.85	-15.54	0.1
Pipe M5498	333.02	8	0.85	33.08	0.21
Pipe M5506	189.1	8	0.85	-58.41	0.37
Pipe M5508	169.11	8	0.85	0	0
Pipe M5510	100.96	8	0.85	0	0
Pipe M5514	321.5	8	0.85	89.24	0.57
Pipe M5517	330.54	8	0.85	89.24	0.57
Pipe M5520	298.31	8	0.85	78.93	0.5
Pipe M5521	82.59	8	0.85	0	0
Pipe M5523	1509.59	8	0.85	168.17	1.07
Pipe M5525	112.84	12	0.85	625.37	1.77
Pipe M5526	551.08	8	0.85	270.35	1.73
Pipe M5530	1093.16	8	0.85	141.88	0.91
Pipe M5531	1066.21	8	0.85	124.94	0.8
Pipe M5532	275.84	8	0.85	135.69	0.87
Pipe M5533	245.34	8	0.85	110.49	0.71
Pipe M5534	377.3	8	0.85	81.45	0.52
Pipe M5535	154.39	8	0.85	-14.24	0.09
Pipe M5536	1594.91	8	0.85	-23.47	0.15
Pipe M5537	336.67	8	0.85	-4.61	0.03
Pipe M5538	309.13	8	0.85	54.05	0.35
Pipe M5539	451.9	8	0.85	34.85	0.22
Pipe M5541	312.15	12	0.85	-902.53	2.56
Pipe M5542	688.56	8	0.85	45.16	0.29

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M5543	1019.48	8	0.85	19.2	0.12
Pipe M5544	1056.04	8	0.85	11.1	0.07
Pipe M5545	699.05	8	0.85	0.54	0
Pipe M5546	1426.59	8	0.85	0.28	0
Pipe M5547	378.36	8	0.85	-47.36	0.3
Pipe M5548	1276.13	8	0.85	-151.96	0.97
Pipe M5550	220.86	12	0.85	436.55	1.24
Pipe M5551	532.92	12	0.85	-41.55	0.12
Pipe M5552	1514.84	8	0.85	-137.05	0.87
Pipe M5553	1022.28	8	0.85	-128.09	0.82
Pipe M5554	382.04	8	0.85	254.57	1.62
Pipe M5555	125.3	8	0.85	300.57	1.92
Pipe M5556	484.32	10	0.85	1856.29	7.58
Pipe M5557	448.7	10	0.85	1488.35	6.08
Pipe M5558	1130.72	8	0.85	-18.31	0.12
Pipe M5559	347.05	8	0.85	367.94	2.35
Pipe M5560	675.25	8	0.85	349.62	2.23
Pipe M5561	833.23	8	0.85	307.78	1.96
Pipe M5562	623.28	8	0.85	-279.29	1.78
Pipe M5563	214.08	8	0.85	401.53	2.56
Pipe M5564	157.88	8	0.85	30.11	0.19
Pipe M5565	292.86	8	0.85	-431.64	2.76
Pipe M5566	279.22	8	0.85	135.76	0.87
Pipe M5568	690.21	8	0.85	-9.24	0.06
Pipe M5570	483.95	8	0.85	-111.85	0.71
Pipe M5571	141.36	8	0.85	-53.63	0.34
Pipe M5572	160.74	8	0.85	-8.14	0.05
Pipe M5573	428.2	8	0.85	45.49	0.29
Pipe M5574	129.22	8	0.85	0	0
Pipe M5575	144.65	8	0.85	-45.49	0.29
Pipe M5577	693.86	8	0.85	10.31	0.07
Pipe M5585	720.78	12	0.85	-368.83	1.05
Pipe M5591	184.63	8	0.85	-124.85	0.8
Pipe M5592	583.69	8	0.85	68.17	0.44
Pipe M5593	315.49	8	0.85	-35.61	0.23
Pipe M5603	544.84	8	0.85	-29.03	0.19
Pipe M5612	254.28	8	0.85	120.8	0.77
Pipe M5613	272.73	8	0.85	-349.67	2.23
Pipe M5623	322.54	8	0.85	61.27	0.39
Pipe M5629	301.03	8	0.85	-0.82	0.01
Pipe M5640	289.52	8	0.85	-60.98	0.39
Pipe M5650	386.34	8	0.85	105.84	0.68
Pipe M5652	105.35	8	0.85	26.28	0.17
Pipe M5653	318.1	8	0.85	-0.95	0.01
Pipe M5657	300.86	8	0.85	4.77	0.03

Link ID	Length ft	Diameter in	Roughness mft	Flow GPM	Velocity fps
Pipe M5658	488.86	8	0.85	-16.59	0.11
Pipe M5660	216.91	8	0.85	36.9	0.24
Pipe M5663	229.22	8	0.85	42.65	0.27
Pipe M5664	209.83	8	0.85	42.39	0.27
Pipe M5665	364.02	8	0.85	-10.89	0.07
Pipe M5666	1073.71	8	0.85	-36.68	0.23
Pipe M5667	293.55	8	0.85	83.46	0.53
Pipe M5668	240.89	8	0.85	90	0.57
Pipe M5669	232.27	8	0.85	90	0.57
Pipe M5673	69.65	10	0.85	-1964.43	8.02
Pipe M5675	804.56	8	0.85	-28.49	0.18
Pipe M5677	701.1	8	0.85	-24.15	0.15

Section 4 – Traffic and Transportation

- Transportation Plan
- ROW Cross Sections
- Active Transportation Plan
- Traffic Impact Study



LEGEND

- 67' LOCAL ROAD
- 69' MINOR COLLECTOR
- 73' MAJOR COLLECTOR
- 88' MAJOR COLLECTOR (MIDDLE CENTER STREET)
- 73' MAJOR COLLECTOR (TRAVERSE TERRACE DRIVE)
- 80' MAJOR ARTERIAL
- 80' MAJOR ARTERIAL
- 94' MAJOR ARTERIAL

SEE DETAILED CROSS SECTIONS ON SHEETS T-2 TO T-4

NOTES:

1. PROJECT WILL MEET CITY CONNECTIVITY STANDARDS AND BE EVALUATED AT PRELIMINARY PLAT.
2. A NEW TRAFFIC SIGNAL SHALL BE CONSTRUCTED AT THE INTERSECTION OF 11800 S. AND HIGHLAND BOULEVARD. A DEDICATED NORTHBOUND LEFT-TURN LANE SHALL BE CONSTRUCTED ON HIGHLAND BOULEVARD AS WELL AS A DEDICATED WESTBOUND LEFT-TURN LANE ON 11800 SOUTH. REFER TO THE TRAFFIC STUDY FOR DETAILS.
3. A NEW NORTH LEG WILL BE ADDED TO THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF CENTER STREET AND SR 92. THE NEW LEG WILL REQUIRE A DEDICATED RIGHT-TURN LANE, A DEDICATED THRU LANE, AND TWO DEDICATED LEFT-TURN LANES. THE EXISTING SOUTH LEG WILL REQUIRE A SHARED THRU-RIGHT TURN LANE. THE EXISTING WEST LEG WILL REQUIRE A NEW DEDICATED LEFT-TURN LANE. REFER TO THE TRAFFIC STUDY FOR DETAILS. ALL IMPROVEMENTS LISTED HERE ARE PROPOSED BUT ARE SUBJECT TO REVIEW AND APPROVAL BY UDOT.
4. ACCESS ONTO THE BLUE AND YELLOW SECTIONS OF CENTER STREET SHALL BE RESTRICTED TO RIGHT IN/RIGHT OUT ENTRANCES. $\frac{3}{4}$ ACCESSES MAY BE ALLOWED IF RECOMMENDED BY A TRAFFIC STUDY AND APPROVED BY CITY STAFF.
5. CHANGES OF A MINOR OR TECHNICAL NATURE MAY BE MADE TO THE TRANSPORTATION PLAN WITHOUT HAVING TO BE SUBMITTED TO PLANNING COMMISSION OR CITY COUNCIL SUBJECT TO THE APPROVAL OF THE LEHI CITY REVIEWING DEPARTMENTS. THESE CHANGES INCLUDE VARIATIONS IN LOCATION DUE TO TOPOGRAPHY, UTILITIES, ETC., SO LONG AS REVIEWING DEPARTMENTS HAVE APPROVED THE CHANGE. LOCATION OF TURN POCKETS, MEDIAN LANDSCAPING, INTERSECTION TREATMENTS, ROADWAY STRIPING, ETC., WILL BE DETERMINED WITH PRELIMINARY DESIGN AND WILL BE ADJUSTED TO MEET THE NEEDS OF ADJACENT LAND USES.

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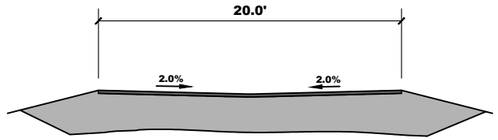
SKYE
LEHI, UTAH

TRANSPORTATION PLAN

REVISIONS
1 -
2 -
3 -
4 -
5 -

LEI PROJECT #: 20-0067
DRAWN BY: RWH
DESIGNED BY: BCT
SCALE: 1" = 1000'
DATE: 7/15/2022
SHEET
T-1

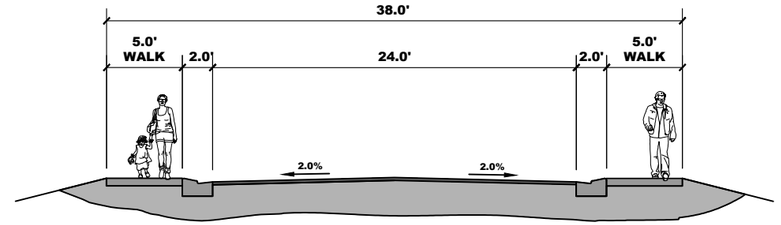


20' PRIVATE ALLEY

(NOT SHOWN ON MAP - TO BE USED IN HD & MD PODS)

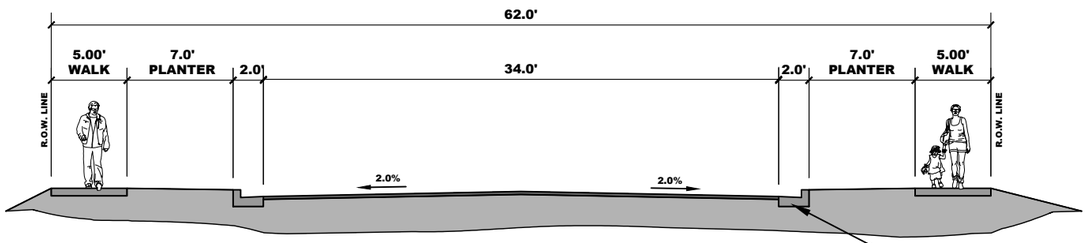
NOTES

1. ALLEYWAYS TO BE USED ONLY ON REAR LOAD UNITS THAT FRONT ONTO A PUBLIC STREET.
2. NO PARKING SHALL BE ALLOWED ON PRIVATE ALLEYWAYS.



38' PRIVATE ROAD

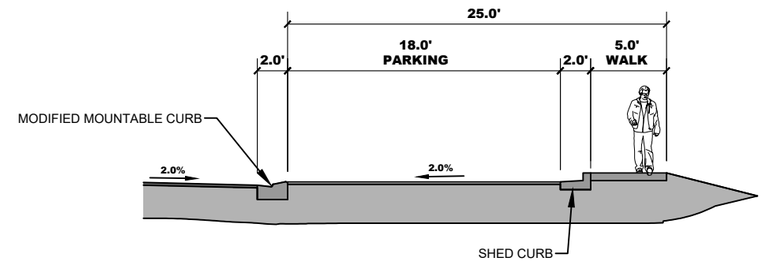
(NOT SHOWN ON MAP - TO BE USED IN HD & AA PODS WITH ATTACHED PRODUCTS ONLY)



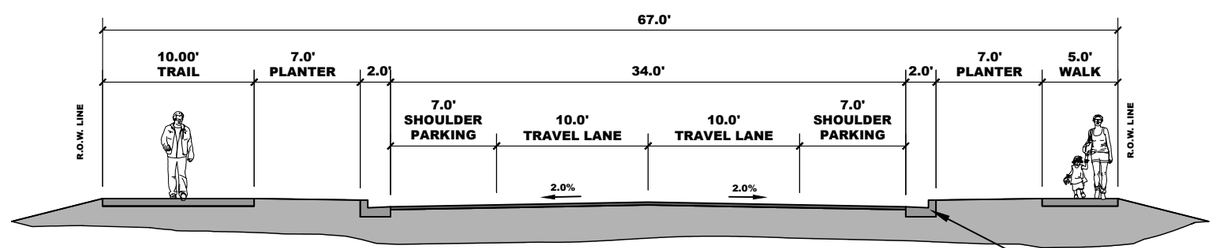
62' LOCAL ROAD

(NOT SHOWN ON MAP - TO BE USED IN LD, VLD & MD PODS)

MODIFIED MOUNTABLE CURB SHALL BE ALLOWED ON LOCAL ROADS WITHIN HD AND MIXED-USE DEVELOPMENTS. MODIFIED MOUNTABLE CURB SHALL ALSO BE ALLOWED ON ANY LOCAL ROADS THAT PROVIDE ACCESS TO OFF-STREET PARKING STALLS.



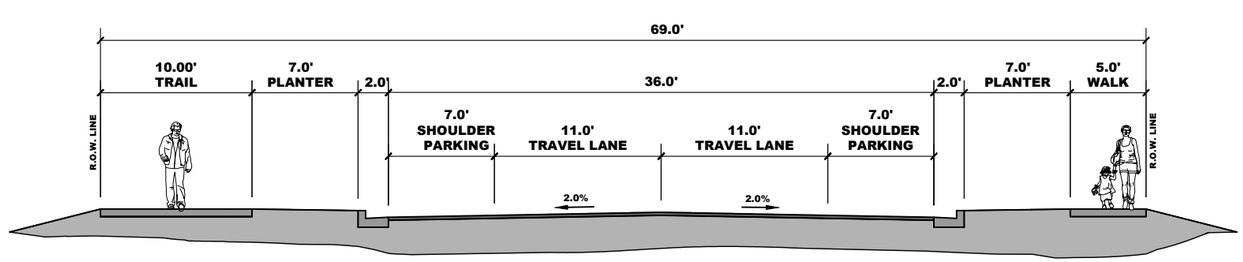
PARKING STALL OPTION ON LOCAL ROAD



67' LOCAL ROAD

(4330 NORTH, EAST SIDE ROADS, UPPER CENTER STREET, UPPER 500 WEST)

MODIFIED MOUNTABLE CURB SHALL BE ALLOWED ON LOCAL ROADS WITHIN HD AND MIXED-USE DEVELOPMENTS. MODIFIED MOUNTABLE CURB SHALL ALSO BE ALLOWED ON ANY LOCAL ROADS THAT PROVIDE ACCESS TO OFF-STREET PARKING STALLS.



69' LOCAL ROAD

(UPPER CENTER STREET)

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SKYE
LEHI, UTAH

TRANSPORTATION PLAN CROSS SECTIONS 1

REVISIONS
1 -
2 -
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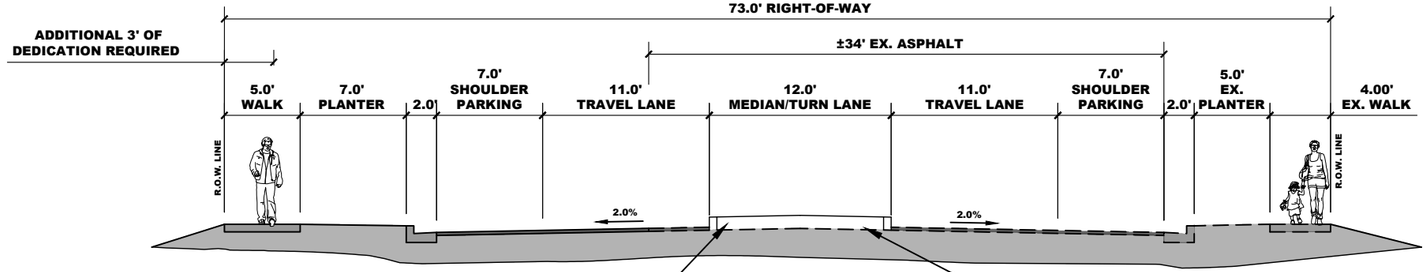
LEI PROJECT #: 20-0067
DRAWN BY: RWH
DESIGNED BY: BCT
SCALE: N.T.S.
DATE: 6/13/2022
SHEET
T-2

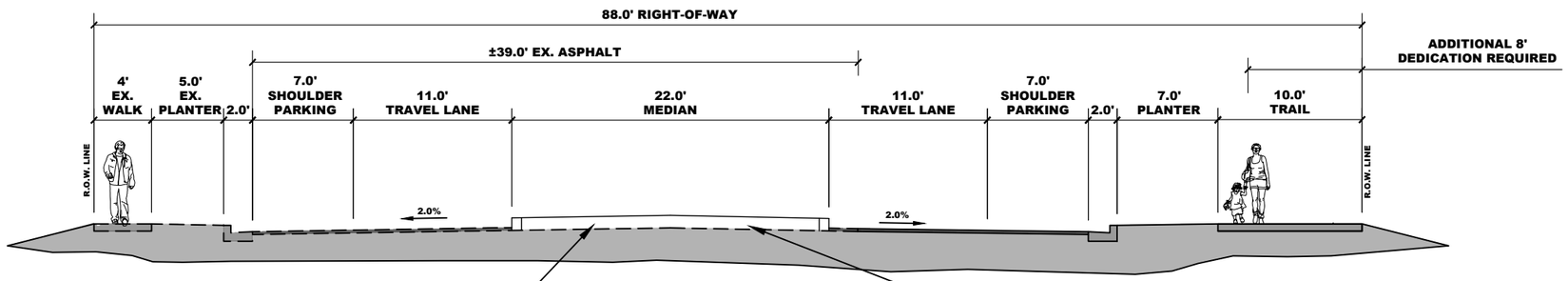


POSSIBLE XERISCAPED WATER-WISE MEDIAN TO BE MAINTAINED BY THE HOA. LOCATION OF AND LANDSCAPING IN MEDIANS TO BE REVIEWED AND APPROVED AT PRELIMINARY

73' MAJOR COLLECTOR

(3950 NORTH)

RAISED MEDIAN SHALL BE DESIGNED TO GRANT MAINTENANCE-TRUCK ACCESS TO ANY MANHOLE LOCATED THERE. DESIGN TO BE REVIEWED AT PRELIMINARY.

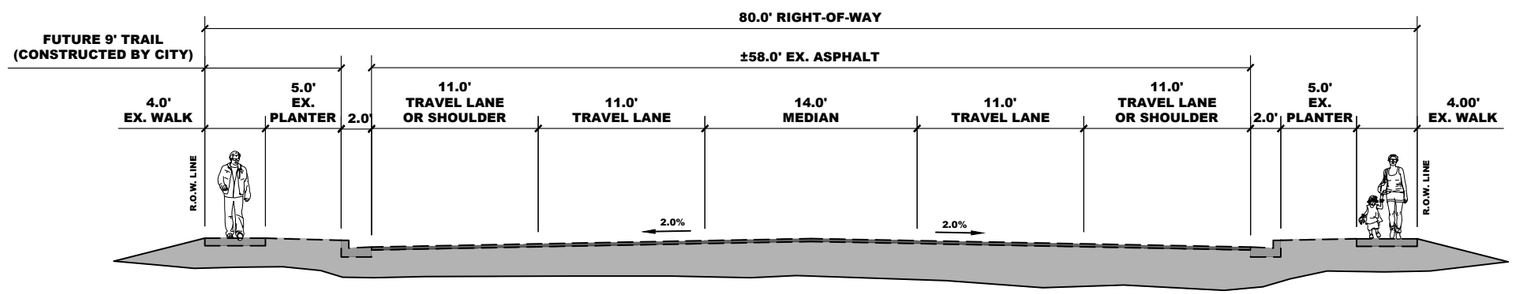


POSSIBLE XERISCAPED WATER-WISE MEDIAN TO BE MAINTAINED BY THE HOA. LOCATION OF AND LANDSCAPING IN MEDIANS TO BE REVIEWED AND APPROVED AT PRELIMINARY

88' MAJOR COLLECTOR

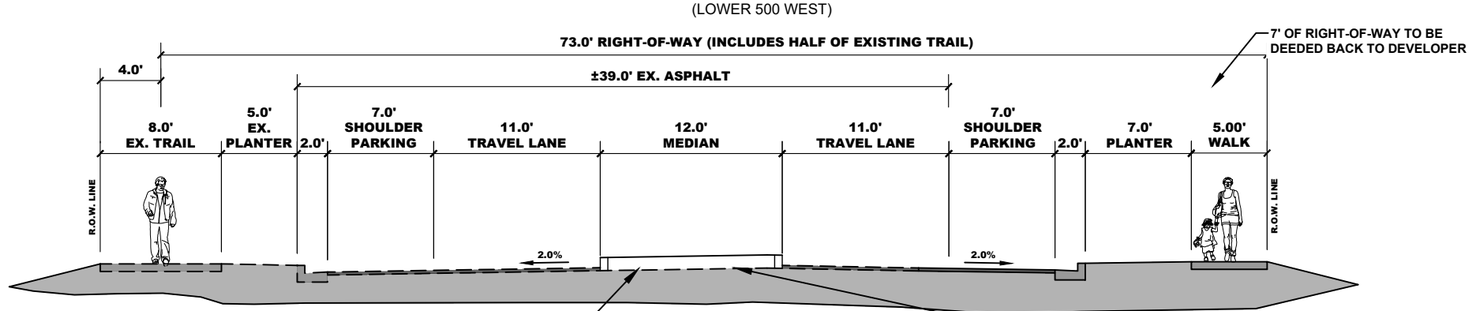
(MIDDLE CENTER STREET)

RAISED MEDIAN SHALL BE DESIGNED TO GRANT MAINTENANCE-TRUCK ACCESS TO ANY MANHOLE LOCATED THERE. DESIGN TO BE REVIEWED AT PRELIMINARY.



80' MAJOR ARTERIAL

(LOWER 500 WEST)



POSSIBLE XERISCAPED WATER-WISE MEDIAN TO BE MAINTAINED BY THE HOA. LOCATION OF AND LANDSCAPING IN MEDIANS TO BE REVIEWED AND APPROVED AT PRELIMINARY

73' MAJOR COLLECTOR

(TRAVERSE TERRACE DRIVE)

RAISED MEDIAN SHALL BE DESIGNED TO GRANT MAINTENANCE-TRUCK ACCESS TO ANY MANHOLE LOCATED THERE. DESIGN TO BE REVIEWED AT PRELIMINARY.

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TRANSPORTATION PLAN CROSS SECTIONS 2

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LEI PROJECT #: 20-0067
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DESIGNED BY: BCT
SCALE: N.T.S.
DATE: 6/13/2022
SHEET
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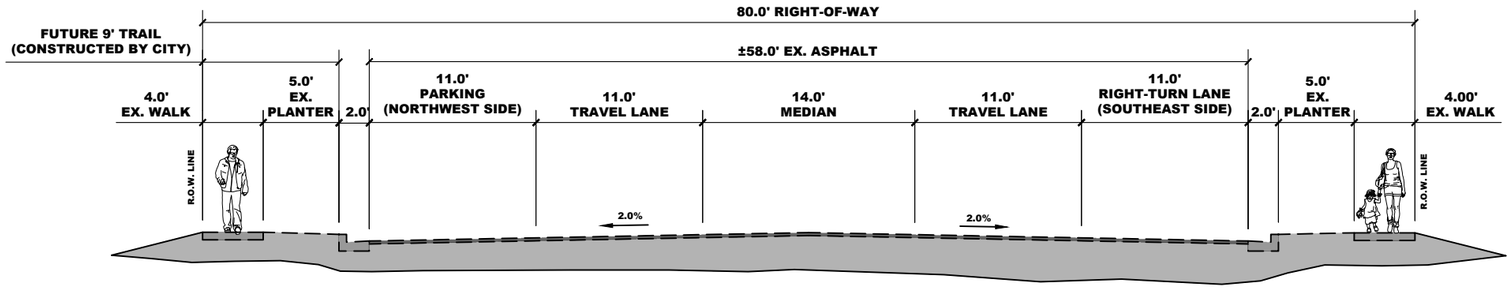
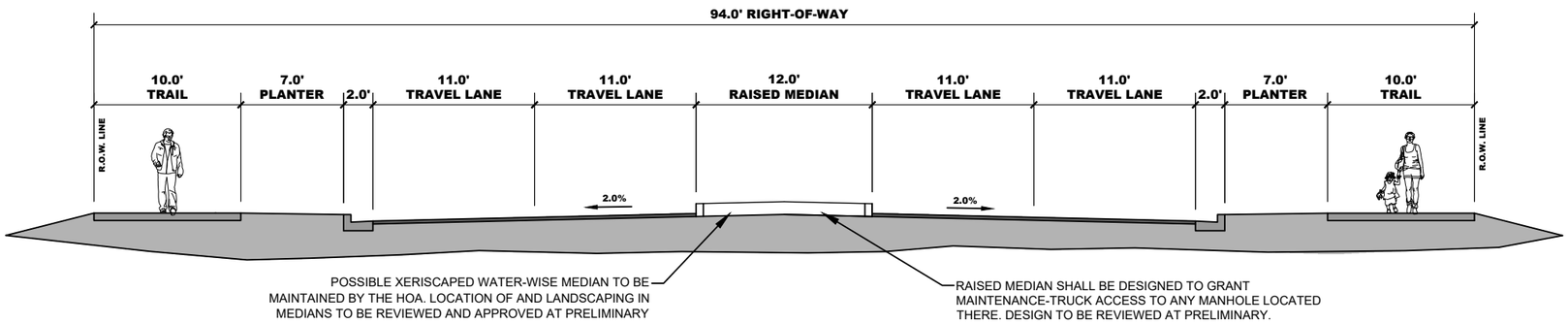


80' MAJOR ARTERIAL

(MIDDLE 500 WEST)



94' MAJOR ARTERIAL

(LOWER CENTER STREET)

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TRANSPORTATION PLAN CROSS SECTIONS 3

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DESIGNED BY: BCT
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DATE: 6/13/2022

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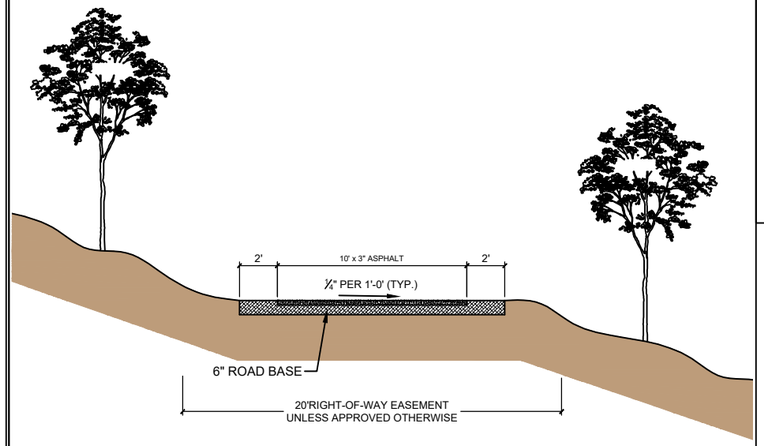
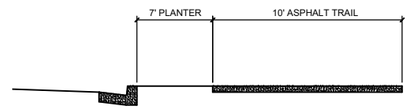


NOTES:

1. CROSS SECTION MAY BE ADJUSTED DEPENDING ON EXISTING CONSTRAINTS AS APPROVED BY THE LEHI CITY ENGINEER.
2. 2' COMPACTED SHOULDER MUST SLOPE AT A 6:1 MAX SLOPE ON EACH SIDE OF THE PAVED TRAIL.
3. SLOPE TRAIL AS NECESSARY TO AVOID PONDING. PROVIDE DRAINAGE IMPROVEMENTS ALONG TRAIL AS REQUIRED TO CONVEY POSSIBLE STORM FLOWS.
4. CONTRACTOR SHALL REMOVE ALL FOLIAGE, ROOTS AND WASTE MATERIALS WITHIN A 12" ZONE BENEATH BASE COURSE. 12" ZONE SHALL THEN BE COMPACTED PRIOR TO PLACEMENT OF ROAD BASE COURSE. CONTRACTOR SHALL ALSO PLACE GROUND STERILANT PRIOR TO PLACEMENT OF ROAD BASE.
5. ALL PEDESTRIAN TRAIL DESIGN PLANS SHALL BE REVIEWED AND APPROVED BY LEHI CITY STAFF PRIOR TO CONSTRUCTION.

LEHI CITY STANDARD TRAIL DETAIL

DETAIL 1

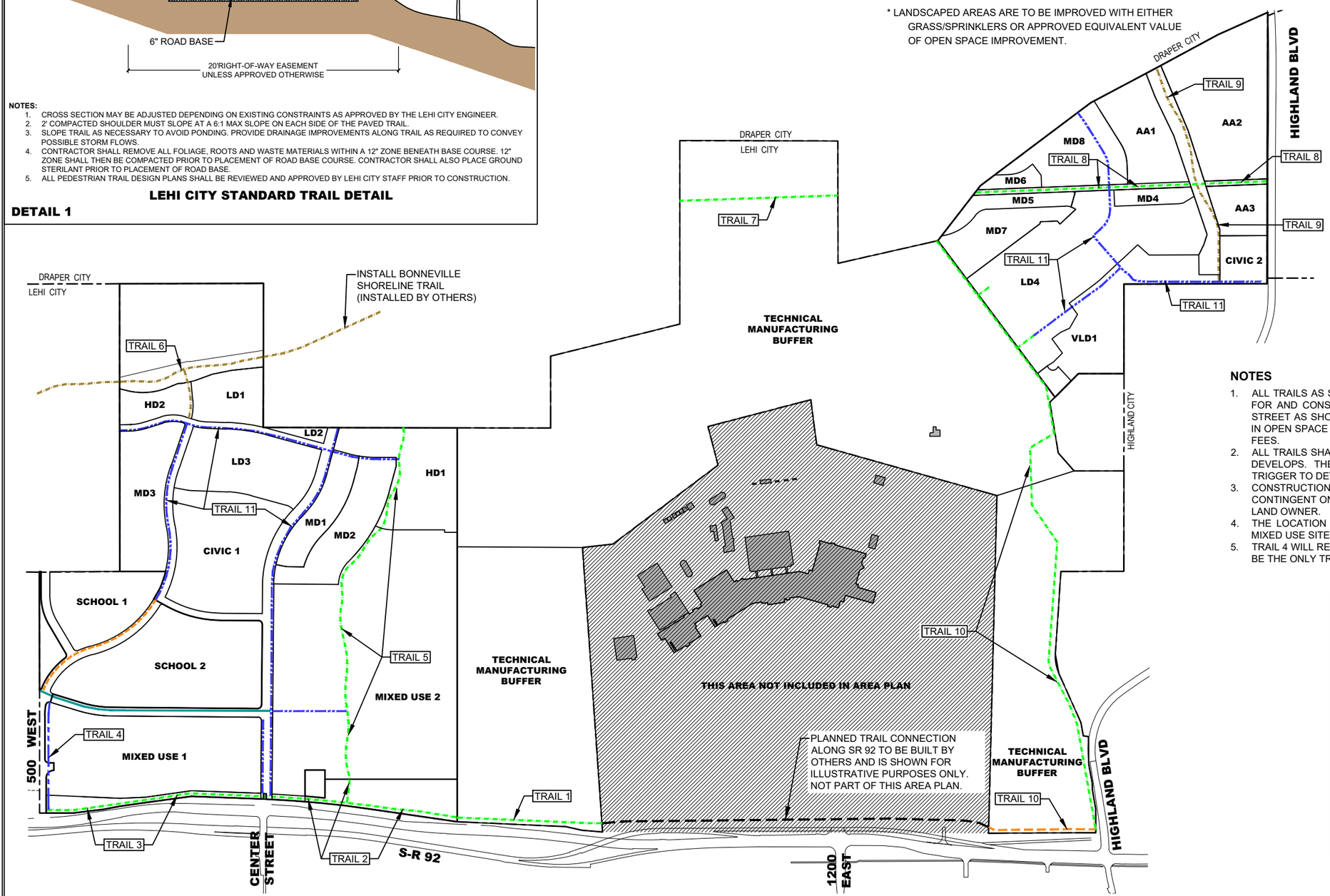


DETAIL 2 - R.O.W. TRAIL

TRAIL MAINTENANCE TABLE

TRAIL ID	LOCATION DESCRIPTION	ROW WIDTH (FT)	TRAIL WIDTH (FT)	TRAIL SURFACE	TRAIL MAINTAINED BY	LANDSCAPE TYPE	LANDSCAPE MAINTAINED BY
1	T/M BUFFER ZONE - WEST SIDE	20	10	ASPHALT	CITY	NATIVE VEGETATION	CITY
2	OPEN SPACE 4 PARCEL	20	10	ASPHALT	CITY	LANDSCAPED*	CITY
3	OPEN SPACE 3 PARCEL	20	10	ASPHALT	CITY	NATIVE VEGETATION	CITY
4	EAST SIDE OF 500 W	17	10	ASPHALT	CITY	LANDSCAPED*	HOA
5	MIXED USE 2 PARCEL/HD1 PARCELS	20	10	CONCRETE/ASPHALT	CITY	LANDSCAPED*	HOA
6	OPEN SPACE 1 PARCEL	TBD	TBD	DIRT	CITY	NATIVE VEGETATION	CITY
7	T/M BUFFER ZONE - NORTH SIDE (IN POWER CORRIDOR)	50	10	ASPHALT	CITY	NATIVE VEGETATION	CITY
8	EAST SIDE POWER CORRIDOR	50	10	ASPHALT	CITY	NATIVE VEGETATION	CITY
9	OPEN SPACE 5 PARCEL	TBD	TBD	DIRT	CITY	NATIVE VEGETATION	CITY
10	T/M BUFFER ZONE - EAST SIDE	20	10	ASPHALT	CITY	NATIVE VEGETATION	CITY
11	ANY TRAILS ALONG PUBLIC ROW'S	17	10	ASPHALT	CITY	LANDSCAPED*	HOA

* LANDSCAPED AREAS ARE TO BE IMPROVED WITH EITHER GRASS/SPRINKLERS OR APPROVED EQUIVALENT VALUE OF OPEN SPACE IMPROVEMENT.



NOTES

1. ALL TRAILS AS SHOWN HERE ARE MASTER PLANNED TRAILS AND SHALL BE PAID FOR AND CONSTRUCTED BY THE DEVELOPER. ANY TRAILS LOCATED ALONG A STREET AS SHOWN IN DETAIL 2 CANNOT BE REIMBURSED. ANY TRAILS LOCATED IN OPEN SPACE AS SHOWN IN DETAIL 1 SHALL BE REIMBURSED THROUGH IMPACT FEES.
2. ALL TRAILS SHALL BE DESIGNED AND CONSTRUCTED AS EACH ADJACENT PHASE DEVELOPS. THE DEVELOPMENT OF ANY GIVEN PHASE SHALL SERVE AS A TRIGGER TO DEVELOP THE ADJACENT SECTION OF TRAIL.
3. CONSTRUCTION OF TRAILS IN THE TECHNICAL MANUFACTURING BUFFER AREA IS CONTINGENT ON EASEMENTS BEING GRANTED TO LEHI CITY FROM THE CURRENT LAND OWNER.
4. THE LOCATION OF TRAIL 5 IS APPROXIMATE AND SHALL BE FINALIZED AS THE MIXED USE SITES DEVELOP.
5. TRAIL 4 WILL REPLACE THE EXISTING SIDEWALK THAT RUNS ALONG 500 W. IT WILL BE THE ONLY TRAIL ALONG A ROW THAT WILL BE REIMBURSABLE BY THE CITY.

LEGEND

- PROPOSED TRAIL (TO BE CONSTRUCTED BY CITY AT SOME FUTURE TIME OR TO BE CONSTRUCTED BY DEVELOPER AND REIMBURSED THROUGH FUNDS OTHER THAN SKYE IMPACT FEES)
- EXISTING TRAILS
- PROPOSED R.O.W. TRAIL (TO BE CONSTRUCTED BY DEVELOPER) (SEE DETAIL 2 ABOVE)
- PROPOSED 20' TRAIL CORRIDOR (SEE DETAIL 1 ABOVE)
- PROPOSED MULTI-USE NATURAL SURFACE TRAIL (TO BE CONSTRUCTED BY DEVELOPER)

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SKYE
LEHI, UTAH

ACTIVE TRANSPORTATION PLAN

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2 -
3 -
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5 -

LEI PROJECT #: 2020-0067
DRAWN BY: RWH
DESIGNED BY: BCT
SCALE: 1" = 1000'
DATE: 7/15/2022

SHEET
OS-4

MICRON TIS

LEHI, UT

JANUARY 4, 2022

PROJECT # UT-CV-3498-21

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Introduction

PURPOSE OF REPORT AND STUDY OBJECTIVES

The purpose of this Traffic Impact Study (TIS) is to identify the traffic impacts for the proposed development, located in Lehi, Utah. The study objectives are: (1) To define the study intersections, (2) estimate trip generation and distribution for the site before and after development, (3) analyze AM and PM peak traffic conditions with and without the project traffic in 2026 and 2050, (4) perform capacity analysis, (5) signal warrant analysis, and (6) recommend improvements to mitigate traffic impacts if necessary.

EXECUTIVE SUMMARY

Site Location and Study Area – The location for the proposed development site is on the north side of SR-92, also known as Timpanogos Highway, and approximately two miles east of I-15 (see **Figure 1**). The proposed development is located to the west and north of the Micron Plant in Lehi, Utah. This study will address the following intersections near the study area.

- Highland Blvd & Grant Blvd
- Highland Blvd & SR-92
- Highland Blvd & SR-92 Commuter Lane On-Ramp
- Center St/8000 West & SR-92
- SR-92 & 500 West
- 500 West & Traverse Terrace Drive
- 3900 North & Canyon Hills Rd
- Canyon Hills Rd & 4050 North
- Highland Blvd & 11800 North
- SR-92 & 1200 East

Signal Warrant Analysis

Horrocks recommends the intersection stop-control of 11800 North & Highland Boulevard be upgraded to a signal in the year 2026. Signal warrant analysis was performed at this intersection. This analysis can be found in the APPENDIX.

Development Description:

- Without annexation from Draper City – The proposed development will have 1,616 dwelling units consisting of townhomes, single-family homes, and estates. The site also has an elementary school, a middle school, two churches, and areas for mixed-use development. The mixed-use development will consist of both residential and commercial space.
- With Annexation from Draper City – The proposed development will have 1,953 residential housing units consisting of townhomes, single-family homes, and estates. The site also has an elementary school, a middle school, two churches, and areas for mixed use development. The mixed-use development will consist of both residential and commercial space. The annexed portion will consist largely of estates.

CONCLUSIONS AND RECOMMENDATIONS

1. Existing Conditions: - All study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 27.0 sec/veh in the AM and a LOS D and a delay of 48.6 sec/veh in the PM. No recommended mitigations at this time.

2. 2026 Background Conditions: - Traffic volumes were projected over five-years from 2021 to 2026 by adding a 10% growth rate to existing traffic conditions. This 10% growth rate (or 2% per year) was generated using UDOT's historic AADT counts. All study intersections perform at an acceptable LOS except for Highland Blvd & 11800 North. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 28.6 sec/veh in the AM and Highland Blvd & 11800 North with a LOS E and a delay of 39.7 sec/veh in the PM.

   Recommended Mitigations:

   - Highland Blvd & 11800 North
     - Upgrade intersection stop control to signal
     - Modify westbound shared left/right to dedicated left and right.

   After mitigations, all study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 28.6 sec/veh in the AM and a LOS D with a delay of 41.1 sec/veh in the PM. No recommended mitigations at this time.

3. Project Trip Generation: - Without the Draper City annexation, Horrocks estimates the proposed development to generate approximately 24,443 new external daily trips with 2,082 during the AM peak and 2,233 during the PM peak, respectively.

4. 2026 Background plus Project Conditions: - Horrocks added project traffic to the 2026 Background conditions to create 2026 Background plus Project Conditions. All study intersections function at acceptable LOS except intersection Center St/8000 West. The study intersection with the highest delay is 1200 East & SR-92 with a LOS D and a delay of 45.0 sec/veh in the AM, and Center St/8000 West & SR-92 with a LOS E with a delay of 59.3 sec/veh in the PM. This scenario includes all previous mitigations.

   Recommended Mitigations:

   - Center St/8000 West & SR-92
     - Modify northbound shared thru/right lane to dedicated thru and right

5. After mitigations, all study intersections operate at an acceptable LOS. The study intersection with the highest delay is 1200 East & SR-92 with a LOS D and a delay of 45.0 sec/veh in the AM, and Center St/8000 West & SR-92 with a LOS D with a delay of 51.5 sec/veh in the PM.

6. 2026 Background plus Project and 337 Units Conditions: - Horrocks added 337 project trips to 2026 Background plus project conditions to create 2026 Background plus Project and 337 Units Conditions. All study intersections perform at an acceptable LOS except intersection Center St/8000 West & SR-92. The study intersection with the highest delay is Center Street/8000 West & SR-92 with a LOS D and a delay of 41.6 sec/veh in the AM and a LOS E with a delay of 57.6 sec/veh in the PM. This scenario includes all previous mitigations.

   Recommended Mitigations:

   - Center St/8000 West & SR-92
     - Add additional northbound thru lane
     - Add additional southbound thru lane

   After mitigations, all study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS D and a delay of 42.4 sec/veh in the AM, and Center Street/8000 West & SR-92 with a LOS D a delay of 47.6 sec/veh in the PM. No recommended mitigations at this time.

7. 2050 Background Conditions: - Traffic volumes were projected over thirty-years from 2021 to 2050 using the Travel Demand Model for the area. All study intersections perform at an acceptable LOS except Highland Blvd & Grant Blvd. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 30.3 sec/veh in the AM and Highland Blvd & Grant Blvd with a LOS E with a delay of 43.5 sec/veh in the PM. This scenario includes all previous mitigations.

   Recommended Mitigations:

   - Highland Blvd & Grant Blvd
     - Upgrade intersection stop-control to signalized

   After mitigations, all study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 32.4 sec/veh in the AM and a LOS D with a delay of 54.0 sec/veh in the PM. This scenario includes all previous mitigations. No recommended mitigations at this time.

8. 2050 Background plus Project conditions: - Horrocks added project traffic to 2050 Background conditions to create 2050 Background plus Project Conditions. All study intersections perform at an acceptable LOS except for Highland Blvd & SR-92 and Center St/8000 West & SR-92. The study intersections with the highest delay are Center St/8000 West & SR-92 with a LOS D and a delay of 45.4 sec/veh in the AM and Highland Blvd & SR-92 with a LOS E and a delay of 74.3 sec/veh in the PM. This scenario includes all previous mitigations.

   Recommended Mitigations:

   - 1200 East & SR-92
     - Add additional westbound left-turn lane
   - Center St/8000 West & SR-92
     - Add additional eastbound left-turn lane
     - Modify northbound shared thru/ right to one dedicate thru and one dedicated right-turn lane

- Highland Blvd & SR-92
    - Add additional westbound left-turn lane
    - Add additional southbound left-turn lane
    - Add additional thru lane for a total of 2 lanes

With this mitigation, all intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS D and a delay 36.6 sec/veh in the AM and Highland Blvd & SR-92 with a LOS D with a delay of 45.2 sec/veh in the PM. This scenario includes all previous mitigations. No recommended mitigations at this time.

9. 2050 Background plus Project with 337 Units: - All study intersections operate at an acceptable LOS. The study intersection with the highest delay is Center St/8000 West & SR-92 with a LOS D and a delay of 39.2 sec/veh in the AM and a LOS D and a delay of 51.5 sec/veh in the PM. This scenario includes all previous mitigations. No recommended mitigations at this time

10. Safety History: - There was a total of 736 crashes on SR-2 from 2016 through 2021. The types of vehicle crashes are as follows:

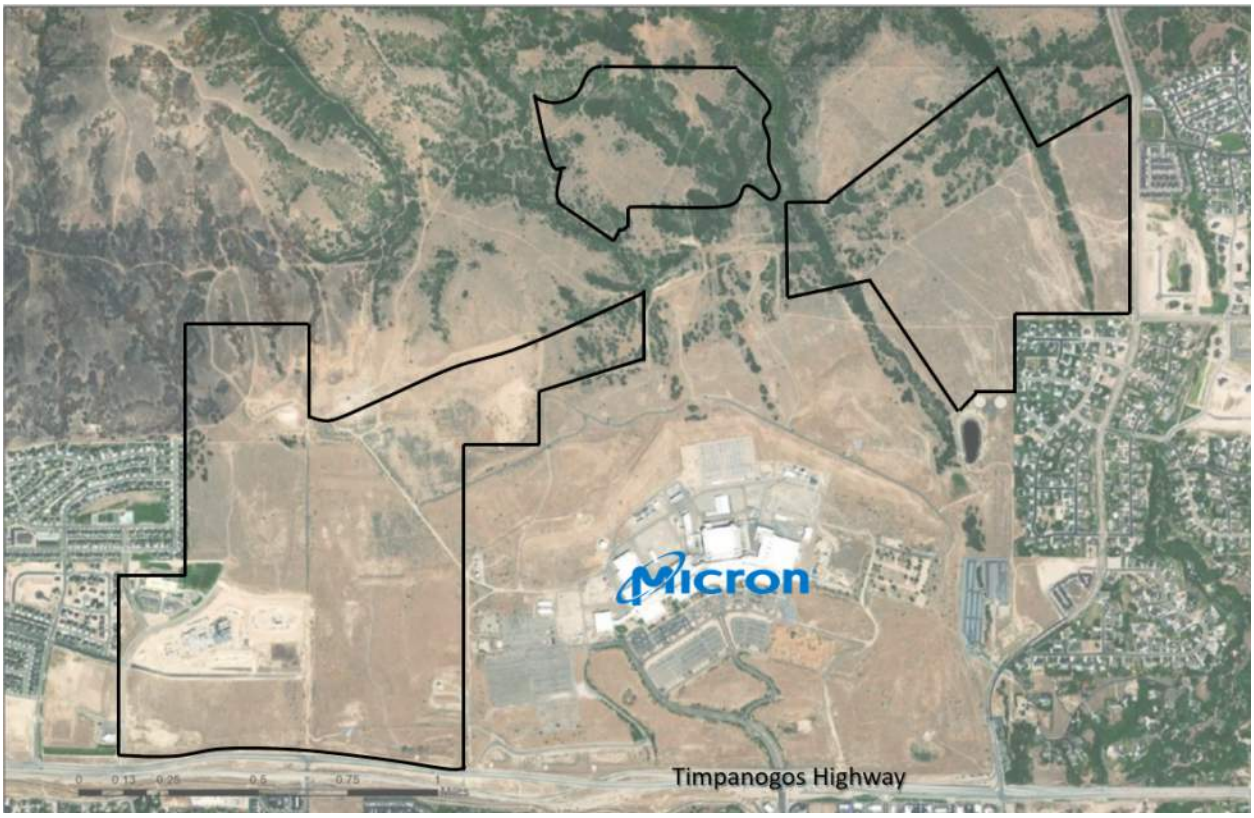
    - Two fatal crashes
    - 68 Suspected minor injury crashes
    - 131 Possible injury crashes
    - 535 Property damage only crashes

Proposed Development

SITE LOCATION

Figure 1 shows the location for the development surrounding Micron in Lehi, Utah. The project is located on the north side of Timpanogos Highway and approximately two miles east of I-15 in Lehi, Utah.

Figure 1: Project Location



SITE PLAN AND PREFERRED ACCESS

The proposed site will have three major accesses from SR-92**.** There are two accesses on the west side of Micron, 500 West and Center Street. Highland Boulevard serves as an access on the east side of Micron. **Figure 2** shows the site plan for the development.

Figure 2: Site Plan

Study Area

STUDY AREA

The major streets potentially impacted by the Micron development is Timpanogos Highway (S.R. 92), 500 West, and Highland Boulevard. The functional classification map, seen in **Figure 3**, shows the functional classification of roadways surrounding the project area. The speed limits listed in the description are the currently posted speed limits.

Roadway Descriptions

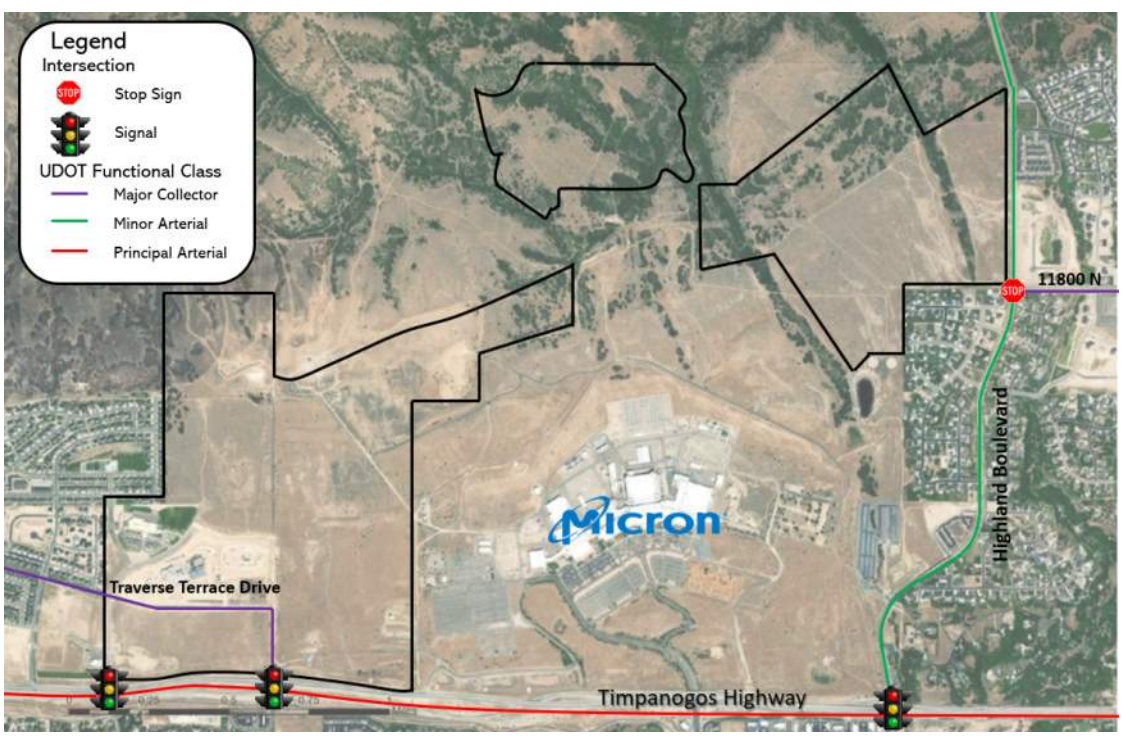
- Timpanogos Highway (S.R. 92): is a west/east running road classified as a primary arterial with a speed limit of 55 mph except for the section of roadway east of 1000 East where the speed limit is 50 mph. This primary arterial is a four-lane roadway with two dedicated thru lanes for each direction separated by a center left turn lane. It has dedicated left and right turning lanes at intersections and is characterized by nearby one lane commuter lanes going both directions.
- Highland Boulevard: is a north/south running road classified as a minor arterial with a speed limit of 35 mph. This minor arterial is a two-lane roadway with one dedicated thru lane for each direction separated by a vegetated median. It has dedicated left turning lanes at intersections.
- 500 West: is a north/south running road classified as a collector with a speed limit of 30 mph. This collector is a four-lane roadway with two dedicated thru lanes for each direction separated by a center left turn lane.

Intersection Descriptions

- 500 West / SR-92: is a signalized High-T-intersection. The southbound lane geometry has one dedicated left-turn lane and one dedicated right-turn lane. The eastbound lane geometry has two dedicated thru lanes and one dedicated left-turn lane. The westbound lane geometry has two dedicated thru-lanes and a dedicated right-turn lane.
- 500 West / Traverse Terrace Drive: is a two-way stop-controlled intersection. The northbound and southbound lane geometries are the same with one dedicated left-turn lane, one dedicated thru lane, and a shared thru-right lane. The westbound and eastbound lane geometries are the same with one dedicated left-turn and a shared thru-right. The westbound and eastbound lanes are stop-controlled, while the northbound and southbound lanes are not.
- 500 West / Canyon Hills Road: is a T-intersection with Canyon Hills Road being stop-controlled at 500 West. The southbound lane geometry is a shared left-turn and one dedicated right-turn lane. The eastbound lane geometry has two dedicated thru lanes and one dedicated left-turn lane. The westbound lane geometry has one dedicated thru-lane and a shared thru-right.
- Canyon Hills Road / 4050 North: is a two-way stop-controlled intersection. The lane geometries of all approaches are shared left-thru-right. The eastbound and westbound lanes are stop-controlled, while the northbound and southbound lanes are not.
- Grant Boulevard / Highland Boulevard: is a T-intersection with Grant Boulevard being stop-controlled at Highland Boulevard. The northbound and westbound lane geometries are the same with a shared left-thru-right lane. The southbound lane geometry has one dedicate thru-lane and one dedicate left-turn lane.

- 11800 North / Highland Boulevard: is a T-intersection with 11800 North being stop-controlled at Highland Boulevard. The northbound and westbound lane geometries are the same with a shared left-thru-right lane. The southbound lane geometry has one dedicate thru-lane and one dedicate left-turn lane.
- Commuter Lane On-ramp / Highland Boulevard: The southbound lane geometry has two dedicated thru-lanes and one dedicated right-turn lane onto the westbound SR-92 commuter lane. The northbound lane geometry has two dedicated thru-lanes.
- Highland Boulevard / SR-92: is a signalized intersection. The southbound lane geometry has one dedicated left-turn lane, one dedicated thru lane, and a channelized right-turn lane. The northbound lane geometry has one dedicated left-turn lane, one dedicated thru lane, and one dedicated right-turn lane. The eastbound lane geometry has two dedicated left-turn lanes, three dedicated thru lanes, and one dedicated right-turn lanes. The westbound lane geometry has one dedicated left-turn lane, two dedicated thru lanes, and one dedicated right-turn lane.
- 1200 East / SR-92: is a signalized intersection. The northbound lane geometry has two dedicated left-turn lane, two dedicated thru lanes, and one dedicated right-turn lane. The southbound lane geometry has two dedicated left-turn lanes, two dedicated thru lanes, and one channelized right-turn lane. The eastbound lane geometry has two dedicated left-turn lanes, three dedicated thru lanes, and one dedicated right-turn lane. The westbound lane geometry has one dedicated left-turn lane, two dedicated thru lanes, and one dedicated right-turn lane.
- Center Street (8000 West) / SR-92: is a signalized intersection. The northbound lane geometry has two dedicated left-turn lanes and one right-turn lane. The eastbound lane geometry has two dedicated thru lanes and one right-turn lane. The westbound lane geometry has two dedicated left-turn lanes and two thru lanes.

Figure 3: UDOT Roadway Classification Map



Analysis of Existing Conditions

STUDY INTERSECTION LEVEL OF SERVICE

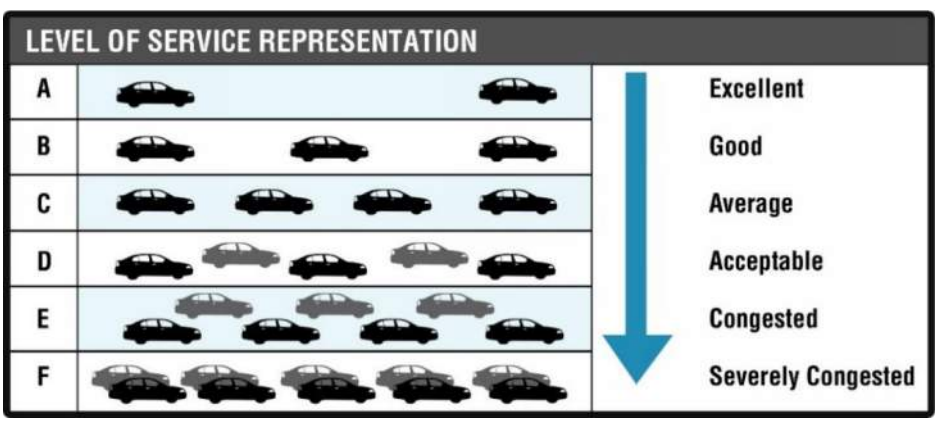
Level of Service (LOS) is a term used by the *Highway Capacity Manual* (HCM) to describe the traffic operations of an intersection, based on congestion and delay. It ranges from LOS A (almost no congestion or delays) to LOS F (traffic demand is above capacity and the intersection experiences long queues and delays). LOS C is generally considered acceptable for rural intersections, while LOS D is acceptable for urbanized intersections. LOS E is the threshold when the intersection reaches capacity. For two-way stop-controlled intersections, average intersection-wide delay and LOS are not defined by the HCM. **Table 1** summarizes LOS delay criteria for stop-controlled movements at unsignalized and signalized intersections. A visual representation of this is shown in **Figure 4.**

Table 1: Level of Service Criteria

Level of Service	Average Control Delay (sec/veh)	
	Signalized	Unsignalized
A	≤ 10	≤ 10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 - 25
D	> 35 - 55	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50

Source: *Highway Capacity Manual (HCM) 6*

Figure 4: LOS example.



EXISTING INTERSECTION OPERATIONS

Horrocks performed the AM and PM peak hour traffic counts for the study intersections in May 2021 and balanced the counts where needed. **Figure 5** and **Figure 6** shows the balanced turnings movements. All study intersections perform at an acceptable LOS, as shown in **Table 2**. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 27.0 sec/veh in the AM and a LOS D and a delay of 48.6 sec/veh in the PM.

Table 2: Existing Peak Hour Traffic Analysis

Intersection Number	Intersection	AM Peak Hour		PM Peak Hour	
		Average Control Delay (sec/veh)	Level of Service	Average Control Delay (sec/veh)	Level of Service
Existing Peak Hour Conditions					
1	Highland Blvd & Grant Blvd	11.9	**B**	13.3	**B**
2	Highland Blvd & SR-92	22.1	**C**	32.1	**C**
3	Center St/8000 West & SR-92	18.5	**B**	20.6	**C**
4	SR-92 & 500 West	11.9	**B**	11.0	**B**
5	500 West & Traverse Terrace Drive	10.2	**B**	9.7	**A**
6	3900 North & Canyon Hills Rd	8.9	**A**	8.6	**A**
7	Canyon Hills Rd & 4050 North	8.9	**A**	9.1	**A**
8	Highland Blvd & 11800 North	16.4	**C**	26.9	**D**
9	1200 East & SR-92	27.0	**C**	48.6	**D**

Source: HCM Methodologies using Synchro Software

Control delay for unsignalized intersections shown for the worst approach only per the HCM.

CRASH DATA

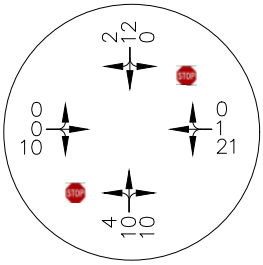
Horrocks received crash data for SR-92 from the Utah Department of Public Safety website. There was a total of 736 total crashes on SR-92 in a 5-year span from 2016 to 2021. The highway experienced the following types of crashes:

- two fatal crashes
- 68 Suspected minor injury crashes
- 131 Possible injury crashes
- 535 No injury crashes

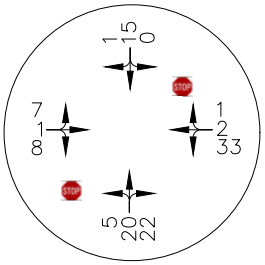
MITIGATIONS

No recommended mitigation at this time.

1 AM PEAK HOUR



1 PM PEAK HOUR



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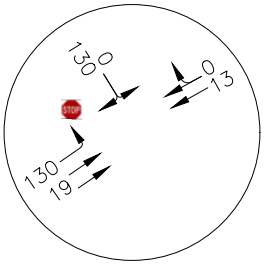
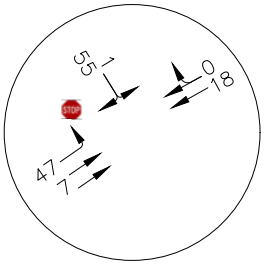


2 PM PEAK HOUR



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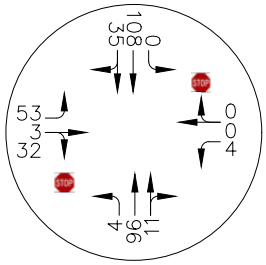
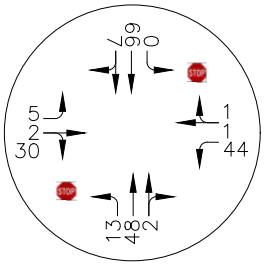


3 PM PEAK HOUR



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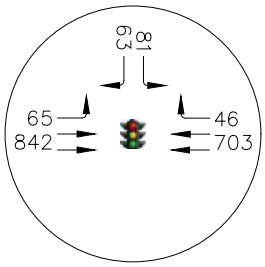
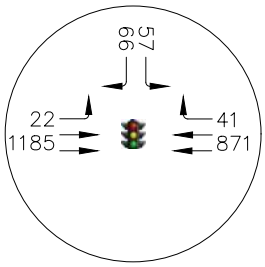


4 PM PEAK HOUR



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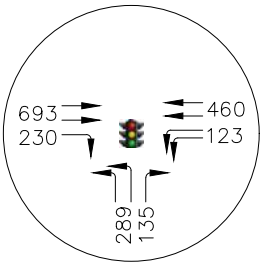
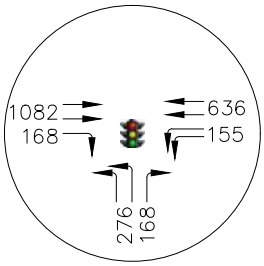


5 PM PEAK HOUR



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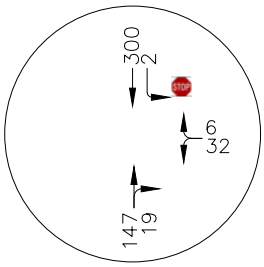
West of Micron
Existing AM & PM Peak Hour Traffic Volumes

FIGURE 5

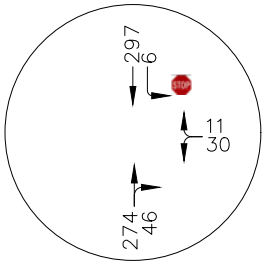
SCALE: N/A

DA 1/2

6 AM PEAK HOUR



6 PM PEAK HOUR



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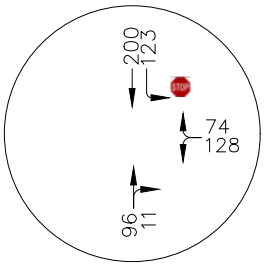

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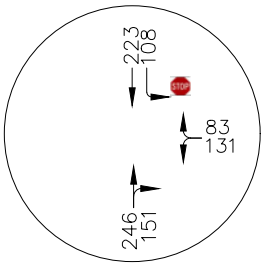

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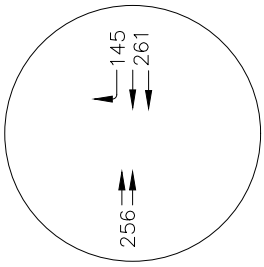
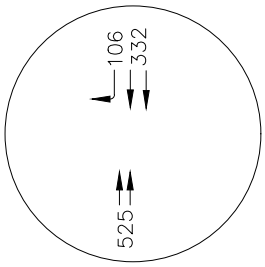


8 PM PEAK HOUR



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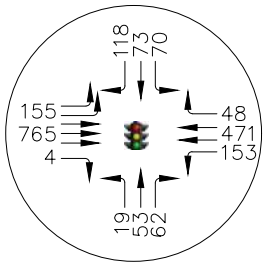
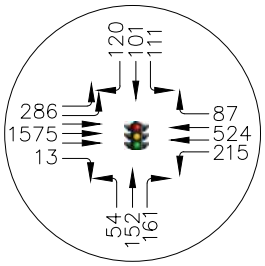


9 PM PEAK HOUR



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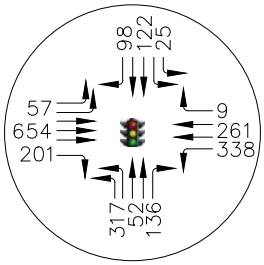
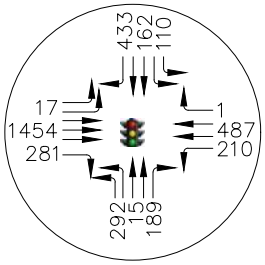


10 PM PEAK HOUR



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East of Micron
Existing AM & PM Peak Hour Traffic Volumes

FIGURE 6

SCALE: N/A

DA--
1/2

Analysis of 2026 Background Conditions

GROWTH RATES

For the 2026 background condition, Horrocks obtained historical traffic data from UDOT at locations surrounding the project. Using the UDOT historical traffic data, an annual background growth factor of 2% will be used for the analysis. The APPENDIX contains the traffic data used to determine the growth.

2026 BACKGROUND CONDITIONS

Existing traffic was grown by 2% annually to create a 2026 background traffic scenario, as shown in **Figure 7** and **Figure 8.** All study intersections perform at an acceptable LOS except for Highland Blvd & 11800 North. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 28.6 sec/veh in the AM and Highland Blvd & 11800 North with a LOS E and a delay of 39.7 sec/veh in the PM, as shown in **Table 3.**

Table 3: 2026 Background Peak Hour Conditions

Intersection Number	Intersection	AM Peak Hour			PM Peak Hour		
		Average Control Delay (sec/veh)	Difference from Existing	Level of Service	Average Control Delay (sec/veh)	Difference from Existing	Level of Service
2026 Background Peak Hour Conditions							
1	Highland Blvd & Grant Blvd	12.4	+0.5	**B**	14.3	+1.0	**C**
2	Highland Blvd & SR-92	23.9	+1.8	**C**	31.6	-0.5	**C**
3	Center St/8000 West & SR-92	19.0	+0.5	**B**	21.4	+0.8	**C**
4	SR-92 & 500 West	12.2	+0.3	**B**	11.4	+0.4	**B**
5	500 West & Traverse Terrace Drive	10.5	+0.3	**B**	9.9	+0.2	**A**
6	3900 North & Canyon Hills Rd	8.9	+0.0	**A**	8.6	+0.0	**A**
7	Canyon Hills Rd & 4050 North	8.9	+0.0	**A**	9.2	+0.1	**A**
8	Highland Blvd & 11800 North	21.9	+5.5	**C**	39.7	+12.8	**E**
9	1200 East & SR-92	28.6	+1.6	**C**	41.1	-6.8	**D**

Source: HCM Methodologies using Synchro Software
Control delay for unsignalized intersections shown for the worst approach only per the HCM.

MITIGATIONS

Highland Blvd & 11800 North

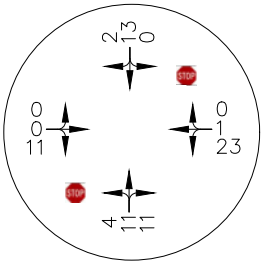
- Upgrade intersection stop control to signal
- Modify westbound shared left/right to dedicated left and right.

With these mitigations, all intersections operate at an acceptable LOS, as shown in **Table** 4. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 28.6 sec/veh in the AM, and a LOS D with a delay of 41.1 sec/veh in the PM. Signal warrant report included in the APPENDIX. The red arrows in figures below show the recommended mitigations.

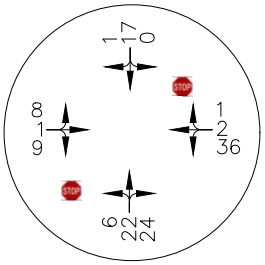
Table 4: 2026 Background with Mitigation Peak Hour Conditions

Intersection Number	Intersection	AM Peak Hour		PM Peak Hour	
		Average Control Delay (sec/veh)	Level of Service	Average Control Delay (sec/veh)	Level of Service
2026 Background with Mitigation Peak Hour Conditions					
1	Highland Blvd & Grant Blvd	13.3	**B**	15.7	**C**
2	Highland Blvd & SR-92	23.9	**C**	31.6	**C**
3	Center St/8000 West & SR-92	19.0	**B**	21.4	**C**
4	SR-92 & 500 West	12.2	**B**	11.4	**B**
5	500 West & Traverse Terrace Drive	10.5	**B**	9.9	**A**
6	3900 North & Canyon Hills Rd	8.9	**A**	8.6	**A**
7	Canyon Hills Rd & 4050 North	8.9	**A**	9.2	**A**
8	Highland Blvd & 11800 North	7.3	**A**	7.9	**A**
9	1200 East & SR-92	28.6	**C**	41.1	**D**

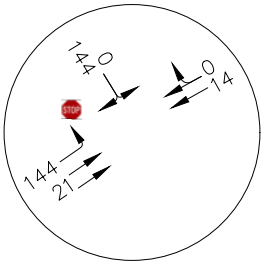
1 AM PEAK HOUR



1 PM PEAK HOUR



2 AM PEAK HOUR



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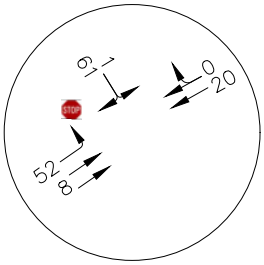

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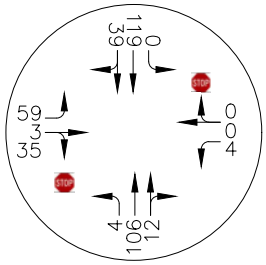
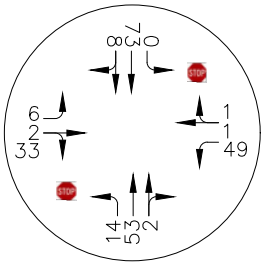


3 PM PEAK HOUR



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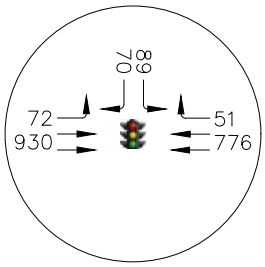
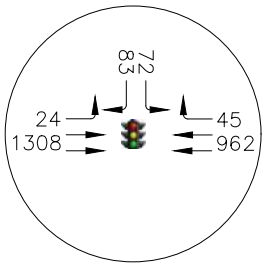


4 PM PEAK HOUR



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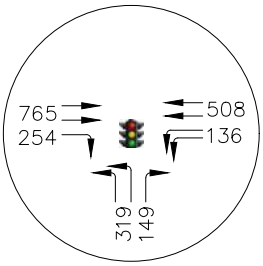
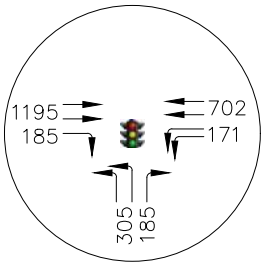


5 PM PEAK HOUR



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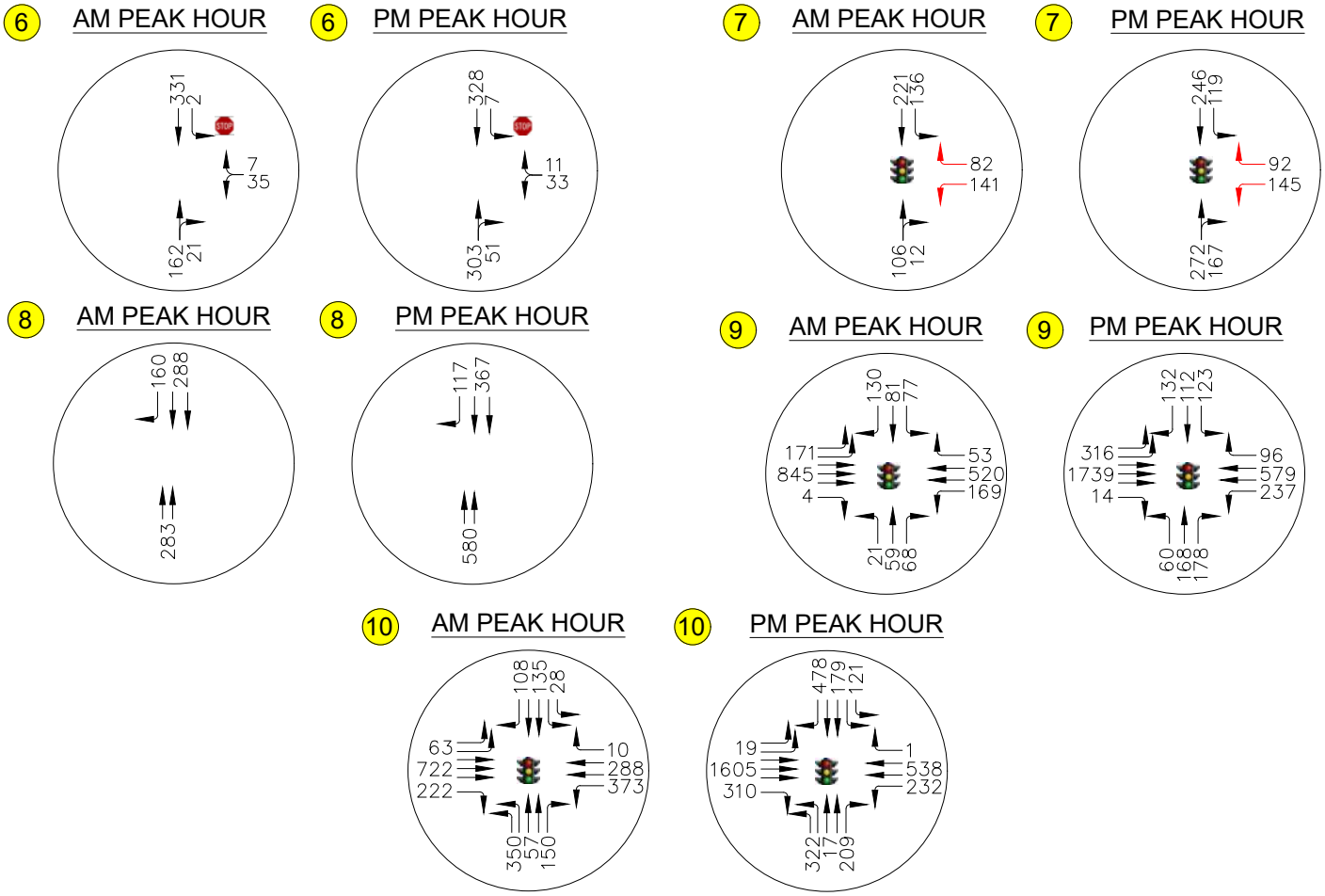
West of Micron
2026 Background with Mitigation AM & PM Peak Hour Traffic Volumes

FIGURE 7

SCALE: N/A

DA 1/2



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East of Micron
2026 Background with Mitigation AM & PM Peak Hour Traffic Volumes

FIGURE 8

SCALE: N/A

DA 1/2

Project Traffic Volumes

Project traffic volumes were estimated and distributed using the industry-standard trip generation literature and using existing traffic counts and engineering judgment to distribute project traffic to the existing road network.

TRIP GENERATION

The trip generation was estimated using the *ITE Trip Generation Manual 10th Edition*. The following land use from the manual was used:

- *Single-Family Detached Housing (ITE 210)* – Single-family detached housing includes all single-family detached homes on individual lots. A typical site surveyed is a suburban subdivision.
- *Multifamily Housing (Mid-Rise) (ITE 221)* – Mid-rise multifamily housing includes apartments, townhomes, and condominiums located within the same building with at least three other dwelling units and that have between three and 10 levels (Floors). Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (Land Use 225), and mid-rise residential with 1st-floor commercial (Land Use 231) are related land uses.
- *Public Park (ITE 411)* – Public parks are owned and operated by a municipal, county, state, or federal agency. The parks surveyed vary widely as to location, type, and number of facilities, including boating or swimming facilities, beaches, hiking trails, ball fields, soccer fields, campsites, and picnic facilities. Seasonal use of the individual sites differs widely as a result of the varying facilities and local conditions, such as weather. For example, some of the sites are used primarily for boating or swimming; others are used for softball games. Soccer complex (Land Use 488) is a related use.
- *Elementary School (ITE 520)* – An elementary school typically serves students attending kindergarten through the fifth or sixth grade. Elementary schools are usually centrally located in residential communities in order to facilitate student access and have no student drivers. This land use consists of schools where bus service is usually provided to students living beyond a specified distance from the school. Both public and private elementary schools are included in this land use. Middle school/junior high school (Land Use 522), high school (Land Use 530), private school (K-8) (Land Use 534), private school (K-12) (Land Use 536), and charter elementary school (Land Use 537) are related uses.
- *Middle School/Junior High School (ITE 522)* – A middle or junior high school serves students who have completed elementary school and have not yet entered high school. Both public and private middle schools/junior high schools are included in this land use. Elementary school (Land Use 520), high school (Land Use 530), private school (K-8) (Land Use 534), private school (K-12) (Land Use 536), and charter elementary school (Land Use 537) are related uses.
- *Church (ITE 560)* – A church is a building in which public worship services are held. A church houses an assembly hall or sanctuary; it may also house meeting rooms, classrooms, and, occasionally, dining, catering, or party facilities. Synagogue (Land Use 561) and mosque (Land Use 562) are related uses.
- *Shopping Center (ITE 820)* – A shopping center is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. A shopping center's

composition is related to its market area in terms of size, location, and type of store. A shopping center also provides on-site parking facilities sufficient to serve its own parking demands. Factory outlet center (Land Use 823) is a related use.

Based on the ITE methodology, the development within the study area is estimated to generate approximately 24,443 new external trips, 2,082 trips, and 2,233 trips occurring during the AM peak and PM peak hours, respectively. The land use descriptions are on the previous page and copies of the ITE Trip Generation 10th Edition land use descriptions and rates used in this project are in the APPENDIX. **Table 5** contains a summary of the calculated trip generation for the project. **Figure 9** shows the location of the development zones.

Horrocks included a Project plus 337 estate units to the study. These scenarios use the project without annexation volumes with 337 additional single-family homes. The trip generation for the additional 337 units is included in the APPENDIX.

TRIP DISTRIBUTION

The estimated new trips from the proposed development were distributed onto the roadway network based on the proposed site access locations, existing turning movements, traffic patterns, and proximity to major roadways, as shown in **Figure 10**. Horrocks used the origin/destination approach for this distribution. Horrocks used the collected traffic count data to distribute project trips to and from the project area. Horrocks assumed that all trips will be made by non-transit vehicles, so modal split was not necessary.

- 35% - West on SR-92
- 15% - South on Center Street
- 15% - South on 1200 East
- 30% - East on SR-92
- 5% - North on Highland Boulevard

Table 5: ITE Trip Generation

Micron TIS -Full Build without Annexation											
	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 1	**Multifamily Housing (Mid-Rise) (ITE 221)**		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	232	1,263	631	631	84	22	62	102	62	40
	Shopping Center (ITE 820)		**37.75**	**37.75**	50%	50%	**0.94**	62%	38%	**3.81**	48%
	1000 Sq. Ft. GFA	50	3,752	1,876	1,876	47	29	18	325	156	169
	Total Internal Capture						5	3		19	45
	Total New Trips		**5,015**	**2,507**	**2,507**	**131**	**46**	**77**	**427**	**199**	**164**
	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 2	**Middle School/Junior High School (ITE 522)**		**20.17**	50%	50%	**6.73**	55%	45%	**3.33**	45%	55%
	1000 Sq. Ft. GFA	117	2,360	1,180	1,180	787	433	354	390	175	214
	Total Internal Capture							4	4	0	11
	Total New Trips		**2,360**	**1,180**	**1,180**	**787**	**429**	**351**	**390**	**165**	**208**
	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 3	**Single-Family Detached Housing (ITE 210)**		**Ln(T)=0.92Ln(x)+2.71**	50%	50%	**T=0.71(x)+4.80**	25%	75%	**Ln(T)=0.96Ln(x)+0.20**	63%	37%
	Dwelling Units	67	717	359	359	52	13	39	69	43	26
	Multifamily Housing (Mid-Rise) (ITE 221)		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	111	603	302	302	40	10	30	49	30	19
	Elementary School (ITE 520)		**19.52**	50%	50%	**6.97**	55%	45%	**1.37**	45%	55%
	1000 Sq. Ft. GFA	46	898	449	449	321	176	144	63	28	35
	Church (ITE 560)		**6.95**	50%	50%	**T=0.36(x)-0.74**	60%	40%	**0.49**	45%	55%
	1000 Sq. Ft. GFA	290	2,016	1,008	1,008	104	62	41	142	64	78
	Total Internal Capture						2	2		6	2
	Total New Trips		**4,236**	**2,117**	**2,117**	**516**	**260**	**252**	**323**	**159**	**155**
	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 4	**Single-Family Detached Housing (ITE 210)**		**Ln(T)=0.92Ln(x)+2.71**	50%	50%	**T=0.71(x)+4.80**	25%	75%	**Ln(T)=0.96Ln(x)+0.20**	63%	37%
	Dwelling Units	125	1277	638	638	94	23	70	126	79	47
	Multifamily Housing (Mid-Rise) (ITE 221)		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	378	2,058	1029	1029	136	35	101	166	101	65
	Public Park (ITE 411)		**0.78**	50%	50%	**0.02**	59%	41%	**0.11**	55%	45%
	Acres	4	91	45	46	0	0	0	0	0	0
	Total Internal Capture						1	2		10	3
	Total New Trips		**3,426**	**1,713**	**1,713**	**230**	**58**	**169**	**293**	**170**	**108**
	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 5	**Multifamily Housing (Mid-Rise) (ITE 221)**		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	232	1,263	631	631	84	22	62	102	62	40
	Shopping Center (ITE 820)		**37.75**	50%	50%	**0.94**	62%	38%	**3.81**	48%	52%
	1000 Sq. Ft. GFA	50	3,752	1,876	1,876	47	29	18	325	156	169
	Total Internal Capture						5	3		19	45
	Total New Trips		**5,015**	**2,507**	**2,507**	**131**	**46**	**77**	**427**	**199**	**164**
	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 6	**Single-Family Detached Housing (ITE 210)**		**Ln(T)=0.92Ln(x)+2.71**	50%	50%	**T=0.71(x)+4.80**	25%	75%	**Ln(T)=0.96Ln(x)+0.20**	63%	37%
	Dwelling Units	196	1,927	963	963	144	36	108	193	122	72
	Church (ITE 560)		**6.95**	50%	50%	**T=0.36(x)-0.74**	60%	40%	**0.49**	45%	55%
	1000 Sq. Ft. GFA	97	674	337	337	34	21	14	48	21	26
	Public Park (ITE 411)		**0.78**	50%	50%	**0.02**	59%	41%	**0.11**	55%	45%
	Acres	4	91	45	46	0	0	0	0	0	0
	Total Internal Capture						0	1		7	2
	Total New Trips		**2,692**	**1,346**	**1,346**	**178**	**56**	**120**	**241**	**136**	**96**
	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 7	**Multifamily Housing (Mid-Rise) (ITE 221)**		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	259	1,410	705	705	93	24	69	114	70	44
	Single-Family Detached Housing (ITE 210)		**Ln(T)=0.92Ln(x)+2.71**	50%	50%	**T=0.71(x)+4.80**	25%	75%	**Ln(T)=0.96Ln(x)+0.20**	63%	37%
	Dwelling Units	17	200	100	100	17	4	12	18	11	7
	Public Park (ITE 411)		**0.78**	50%	50%	**0.02**	59%	41%	**0.11**	55%	45%
	Acres	5	92	46	46	0	0	0	1	0	0
	Total Internal Capture						0	1		5	2
	Total New Trips		**1,702**	**851**	**851**	**110**	**28**	**81**	**133**	**76**	**50**
Total Development Trips			**24,443**	**12,221**	**12,222**	**2,082**	**923**	**1,126**	**2,233**	**1,105**	**944**

Figure 9: Zone Map

Figure 10: Trip Distribution

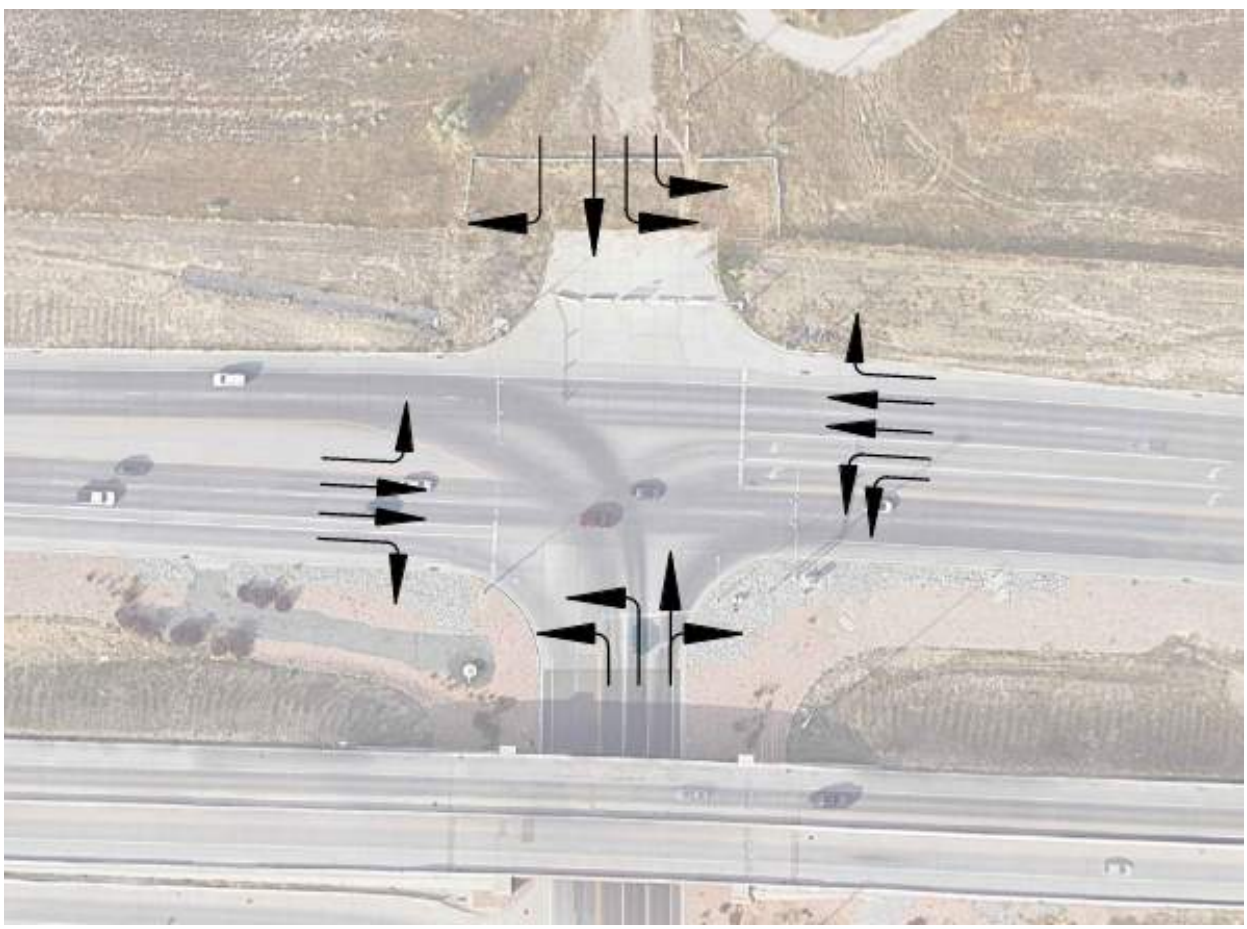
NEW INTERSECTION LEG

The Center Street/8000 West intersection will have a new north leg (southbound approach) when the project is constructed. The lane geometry for the new approach is two dedicated left-turn lanes, one dedicated thru lane, and one dedicated right-turn lane. The updated lane geometry for the existing approaches are as follows:

- South Approach: Two dedicated left-turn lanes and a shared thru-right.
- East Approach: One dedicated left-turn lane, two dedicated thru lanes, and a dedicated right-turn lane
- West Approach: Two dedicated left-turn lanes, two dedicated thru lanes, and one dedicated right-turn lanes.

Figure 11 shows the updated lane geometry for the intersection.

Figure 11: North Leg Geometry



Analysis of 2026 Background Plus Project Conditions

2026 BACKGROUND PLUS PROJECT CONDITIONS

Horrocks applied the project conditions from the proposed development without the annexation to the 2026 Background Conditions to create the 2026 Background plus Project conditions, as shown in **Figure 12** and **Figure 13**. Traffic generated by the project site is shown in **Figure 14** and **Figure 15**. All study intersections perform at an acceptable LOS except for Center St/8000 West & SR-92. The study intersection with the highest delay is 1200 East & SR-92 with a LOS D and a delay of 45.0 sec/veh in the AM and Center St/8000 West & SR-92 with a LOS E with a delay of 59.3 sec/veh in the PM, as shown in **Table 6**. This scenario includes all previous mitigations.

Table 6: 2026 Background plus Project Peak Hour Conditions

Intersection Number	Intersection	AM Peak Hour			PM Peak Hour		
		Average Control Delay (sec/veh)	Difference from 2026 Background	Level of Service	Average Control Delay (sec/veh)	Difference from 2026 Background	Level of Service
2026 Background plus Project Peak Hour Conditions							
1	Highland Blvd & Grant Blvd	18.2	+4.9	**C**	23.3	+7.6	**C**
2	Highland Blvd & SR-92	31.6	+7.7	**C**	45.3	+13.7	**D**
3	Center St/8000 West & SR-92	43.6	+24.6	**D**	59.3	+37.9	**E**
4	SR-92 & 500 West	28.1	+15.9	**C**	20.4	+9.0	**C**
5	500 West & Traverse Terrace Drive	14.4	+4.3	**B**	13.0	+3.1	**B**
6	3900 North & Canyon Hills Rd	9.6	+0.7	**A**	9.0	+0.4	**A**
7	Canyon Hills Rd & 4050 North	9.7	+0.8	**A**	9.7	+0.5	**A**
8	Highland Blvd & 11800 North	8.8	+1.5	**A**	10.0	+2.1	**B**
9	1200 East & SR-92	45.0	+16.4	**D**	32.6	-8.5	**C**

Source: HCM Methodologies using Synchro Software
Control delay for unsignalized intersections shown for the worst approach only per the HCM.

MITIGATIONS

Center St/8000 West & SR-92

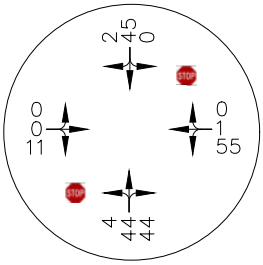
- Modify northbound shared thru/right lane to dedicated thru and right

With these mitigations, all intersections operate at an acceptable LOS, as shown in **Table 7**. The study intersection with the highest delay is 1200 East & SR-92 with a LOS D and a delay of 45.0 sec/veh in the AM, and Center St/8000 West & SR-92 with a LOS D with a delay of 51.5 sec/veh in the PM. Signal warrant report included in the APPENDIX. The red arrows in figures below show the recommended mitigations.

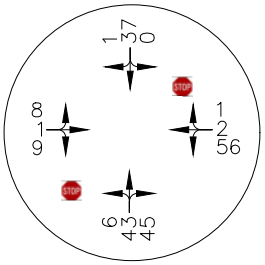
Table 7: 2026 Background plus Project with Mitigation Peak Hour Conditions

Intersection Number	Intersection	AM Peak Hour		PM Peak Hour	
		Average Control Delay (sec/veh)	Level of Service	Average Control Delay (sec/veh)	Level of Service
2026 Background plus Project with Mitigation Peak Hour Conditions					
1	Highland Blvd & Grant Blvd	18.2	**C**	23.3	**C**
2	Highland Blvd & SR-92	31.6	**C**	45.3	**D**
3	Center St/8000 West & SR-92	37.8	**D**	51.5	**D**
4	SR-92 & 500 West	28.1	**C**	20.4	**C**
5	500 West & Traverse Terrace Drive	14.4	**B**	10.7	**B**
6	3900 North & Canyon Hills Rd	9.6	**A**	9.0	**A**
7	Canyon Hills Rd & 4050 North	9.7	**A**	9.7	**A**
8	Highland Blvd & 11800 North	8.8	**A**	10.0	**B**
9	1200 East & SR-92	45.0	**D**	32.6	**C**

1 AM PEAK HOUR



1 PM PEAK HOUR



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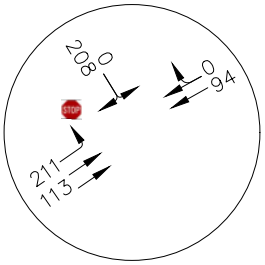

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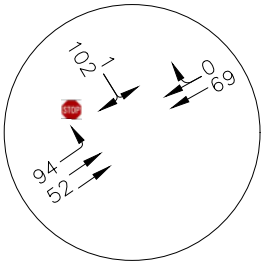

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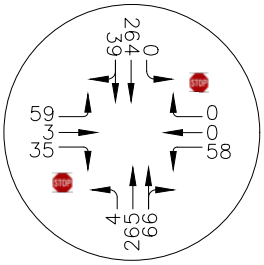
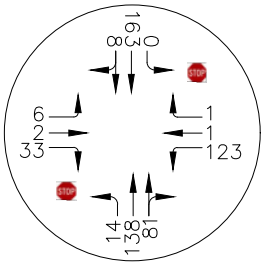


3 PM PEAK HOUR



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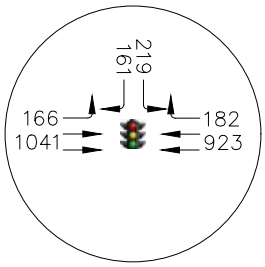

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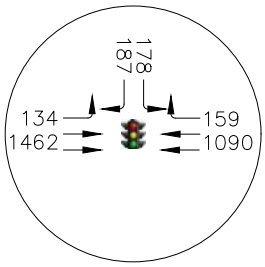

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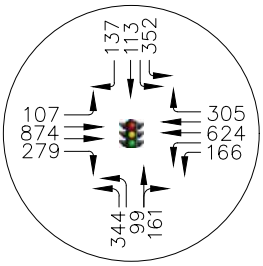

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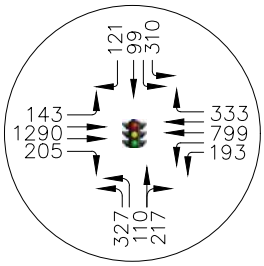

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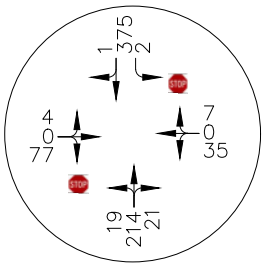
West of Micron
2026 Background plus Project with Mitigations AM & PM Peak Hour Traffic Volumes

FIGURE 12

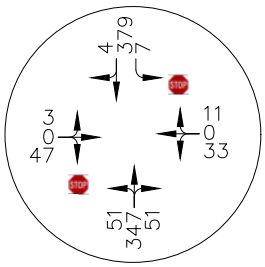
SCALE: N/A

DA 1/2

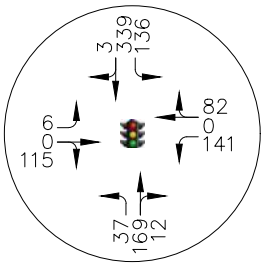
6 AM PEAK HOUR



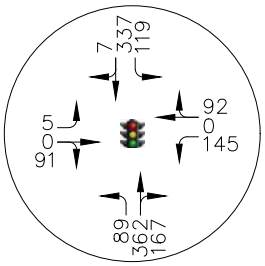
6 PM PEAK HOUR



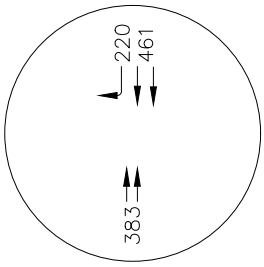
7 AM PEAK HOUR



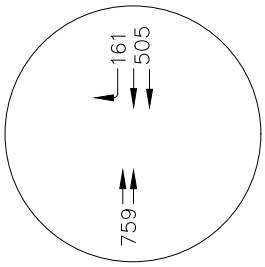
7 PM PEAK HOUR



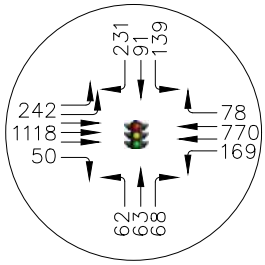
8 AM PEAK HOUR



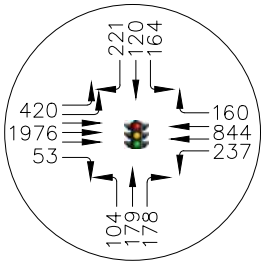
8 PM PEAK HOUR



9 AM PEAK HOUR



9 PM PEAK HOUR



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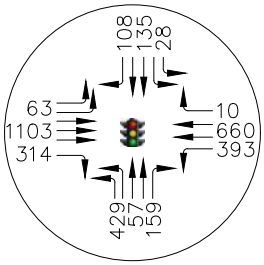
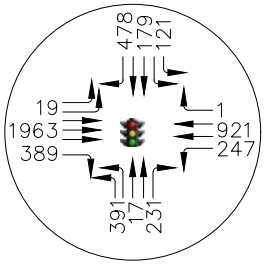


10 PM PEAK HOUR



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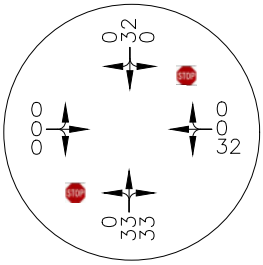
East of Micron
2026 Background plus Project with Mitigation AM & PM Peak Hour Traffic Volumes

FIGURE 13

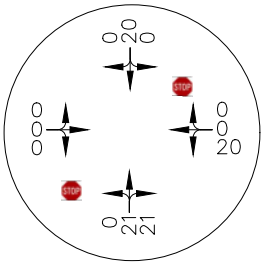
SCALE: N/A

DA 1/2

1 AM PEAK HOUR



1 PM PEAK HOUR



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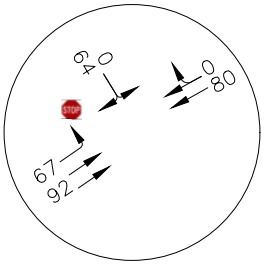

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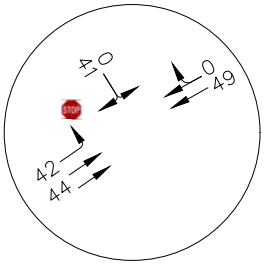

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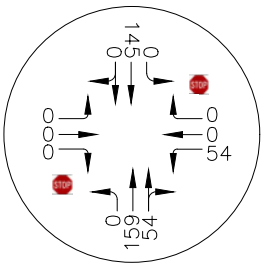

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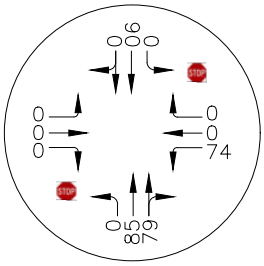

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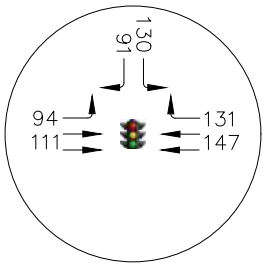

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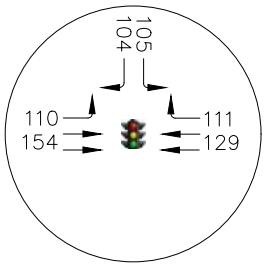

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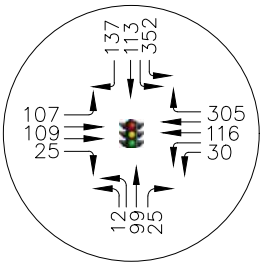

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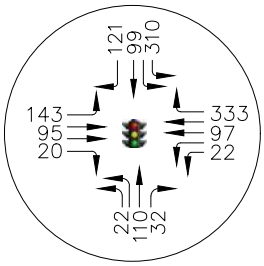

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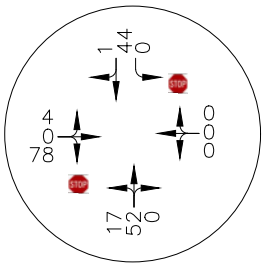
Project Only AM & PM Peak Hour Traffic Volumes

FIGURE 14

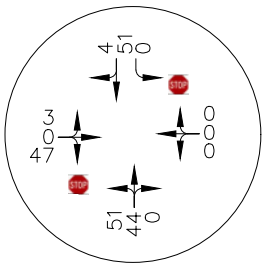
SCALE: N/A

DA 1/2

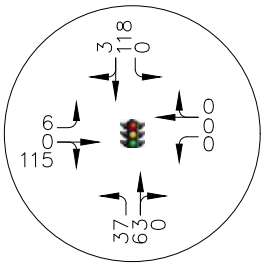
6 AM PEAK HOUR



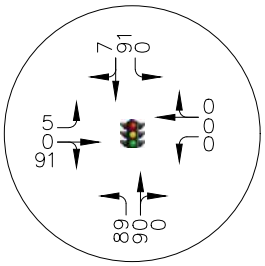
6 PM PEAK HOUR



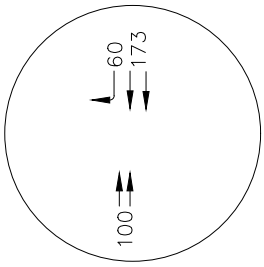
7 AM PEAK HOUR



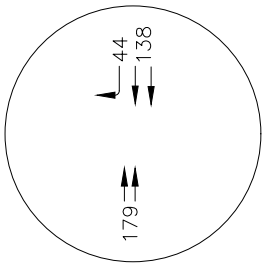
7 PM PEAK HOUR



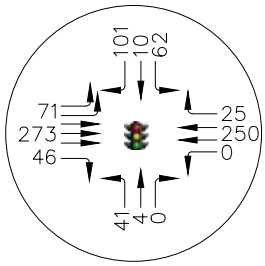
8 AM PEAK HOUR



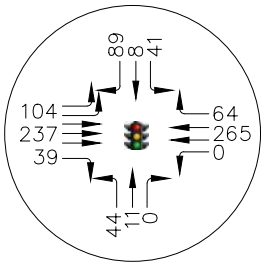
8 PM PEAK HOUR



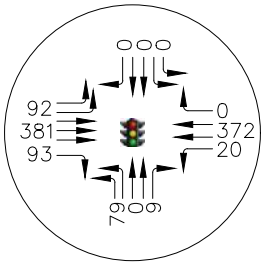
9 AM PEAK HOUR



9 PM PEAK HOUR



10 AM PEAK HOUR



10 PM PEAK HOUR

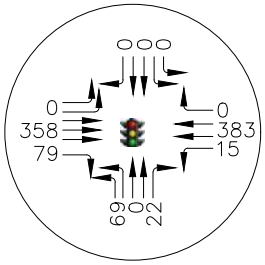


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FIGURE 15

SCALE: N/A

DA 1/2

Analysis of 2026 Background with Project with 337 Estate Units

INTERSECTION OPERATIONS

Horrocks applied the project conditions from the proposed development without the annexation with the additional 337 single family homes to the 2026 Background Conditions to create the 2026 Background plus Project with 337 Estate Units conditions, as shown in **Figure 16** and **Figure 17.** All study intersections perform at an acceptable LOS except intersection Center St/8000 West & SR-92, as shown in **Table 8**. The study intersection with the highest delay is Center Street/8000 West & SR-92 with a LOS D and a delay of 41.6 sec/veh in the AM and a LOS E with a delay of 57.6 sec/veh in the PM. This scenario includes all previous mitigations.

Table 8: 2026 Background plus Project with 337 Estate Units Peak Hour Conditions

Intersection Number	Intersection	AM Peak Hour			PM Peak Hour		
		Average Control Delay (sec/veh)	Difference from 2026 plus Project Mitigation	Level of Service	Average Control Delay (sec/veh)	Difference from 2026 plus Project Mitigation	Level of Service
2026 Background plus Project with 337 Estate Units Peak Hour Conditions							
1	Highland Blvd & Grant Blvd	18.2	+0.0	**C**	23.4	+0.1	**C**
2	Highland Blvd & SR-92	30.3	-1.3	**C**	45.3	+0.0	**D**
3	Center St/8000 West & SR-92	41.6	+2.5	**D**	57.6	+6.1	**E**
4	SR-92 & 500 West	18.7	-11.0	**B**	20.4	+0.0	**C**
5	500 West & Traverse Terrace Drive	14.5	+0.1	**B**	13.0	+0.0	**B**
6	3900 North & Canyon Hills Rd	9.6	+0.0	**A**	9.0	+0.0	**A**
7	Canyon Hills Rd & 4050 North	11.9	+2.2	**B**	9.7	+0.0	**A**
8	Highland Blvd & 11800 North	8.8	+0.0	**A**	10.1	+0.1	**B**
9	1200 East & SR-92	32.4	-2.6	**D**	32.6	+0.0	**C**

Source: HCM Methodologies using Synchro Software
Control delay for unsignalized intersections shown for the worst approach only per the HCM.

MITIGATIONS

Center St/8000 West & SR-92

- Add additional northbound thru lane
- Add additional southbound thru lane

With these mitigations, all intersections operate at an acceptable LOS, as shown in **Table** 4. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 42.4 sec/veh in the AM, and Center Street/8000 West & SR-92 with a LOS D a delay of 47.6 sec/veh in the PM. This scenario includes all previous mitigations. The red arrows in figures below show the recommended mitigations.

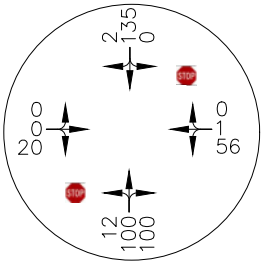
Table 9: 2026 Background plus Project plus 337 with Mitigation Peak Hour Conditions

Intersection Number	Intersection	AM Peak Hour		PM Peak Hour	
		Average Control Delay (sec/veh)	Level of Service	Average Control Delay (sec/veh)	Level of Service
2026 Background plus Project plus 337 with Mitigation Peak Hour Conditions					
1	Highland Blvd & Grant Blvd	18.2	**C**	23.4	**C**
2	Highland Blvd & SR-92	30.3	**C**	45.3	**D**
3	Center St/8000 West & SR-92	40.4	**D**	47.6	**D**
4	SR-92 & 500 West	18.7	**B**	20.4	**C**
5	500 West & Traverse Terrace Drive	14.5	**B**	13.0	**B**
6	3900 North & Canyon Hills Rd	9.6	**A**	9.0	**A**
7	Canyon Hills Rd & 4050 North	11.9	**B**	9.7	**A**
8	Highland Blvd & 11800 North	8.8	**A**	10.1	**B**
9	1200 East & SR-92	42.4	**D**	32.6	**C**

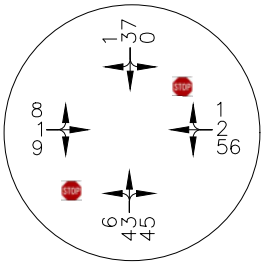
PROJECT ROADWAY OPERATION

The proposed road 8000 West was analyzed to determine if and when the road will need to expand from a 3-lane to a 5-lane roadway based on the number of single-family estate units included in the annexation. Horrocks determined the ADT by adding the additional 337 estate units to the full buildout project traffic using the same trip distribution and trip assignment as the Project Traffic Volumes section in this report. This scenario analyzed the Level of Service on the planned road 8000 West after applying the ADT of the project with 337 additional single-family homes to the 2026 Background conditions. Under the above-described conditions 8000 West has an ADT volume of 12,540. As a 3-lane road, 8000 West will operate at LOS D. As a 5-lane road, 8000 West will operate at LOS A.

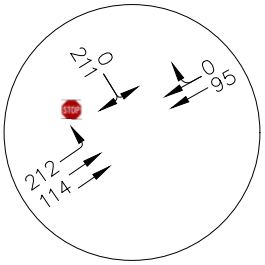
1 AM PEAK HOUR



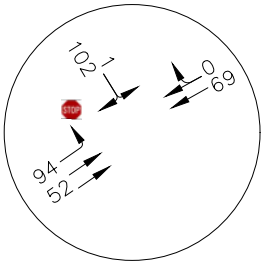
1 PM PEAK HOUR



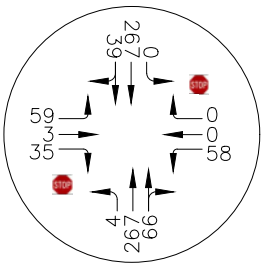
2 AM PEAK HOUR



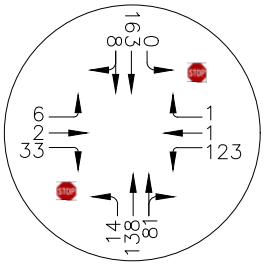
2 PM PEAK HOUR



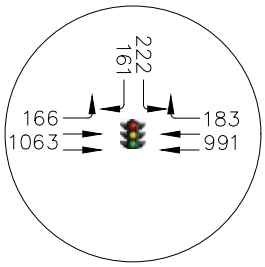
3 AM PEAK HOUR



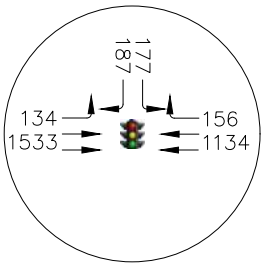
3 PM PEAK HOUR



4 AM PEAK HOUR



4 PM PEAK HOUR



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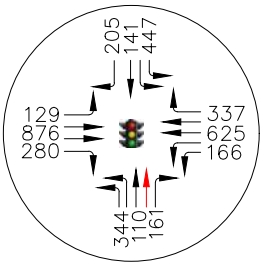

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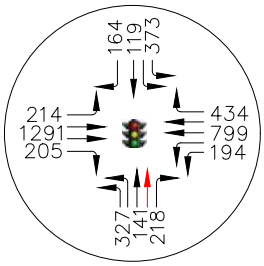

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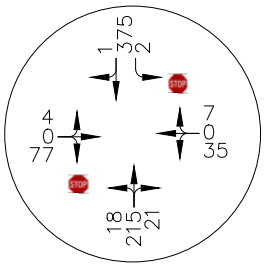
2026 Background plus Project with 337 Estate Units AM & PM Peak Hour Traffic Volumes

FIGURE 16

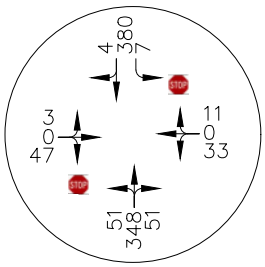
SCALE: N/A

DA 1/2

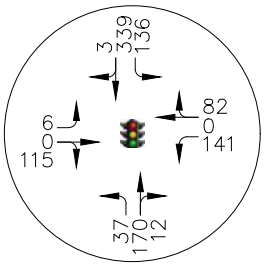
6 AM PEAK HOUR



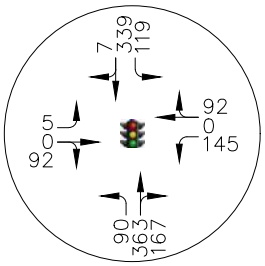
6 PM PEAK HOUR



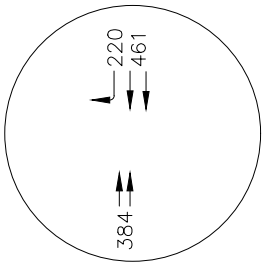
7 AM PEAK HOUR



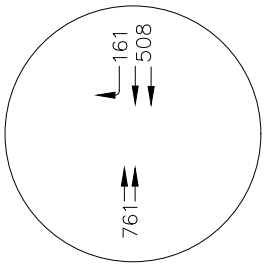
7 PM PEAK HOUR



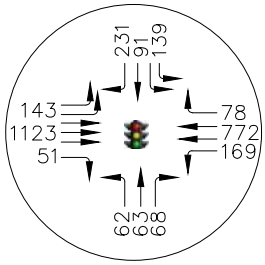
8 AM PEAK HOUR



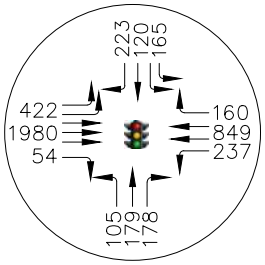
8 PM PEAK HOUR



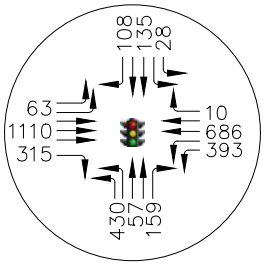
9 AM PEAK HOUR



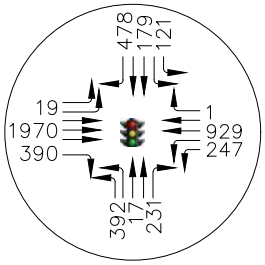
9 PM PEAK HOUR



10 AM PEAK HOUR



10 PM PEAK HOUR



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2026 Background plus Project with 337 Estate Units Mitigations AM & PM Peak Hour Traffic Volumes

FIGURE 17

SCALE: N/A

DA 1/2

Analysis of 2050 Background Conditions

2050 VOLUME PROJECTION

For the 2050 background condition, Horrocks used the Regional Travel Demand Model (TDM) for the area to obtain the 2050 volumes, as shown in **Figure 18** and **Figure 19**. The APPENDIX contains the traffic data used to determine the growth.

Regional Travel Demand Model (TDM)

MAG is the designated Metropolitan Planning Organization (MPO) for Summit, Utah, and Wasatch counties in Utah. MAG works in partnership with UDOT, Utah Transit Authority (UTA), local governments, and other stakeholders to develop long-range transportation plans for the communities within their jurisdictions. As part of its transportation planning work, MAG, in collaboration with the Wasatch Front Regional Council (WFRC), maintains a regional Travel Demand Model (TDM) for its jurisdictional area (currently version 8.3.1). References to "the model" in this report refer to the scripts and data maintained by MAG/WFRC, not to the Cube software.

The TDM is a state-of-the-practice tool that allows transportation analysts to input various land use and growth scenarios for different road and transit networks to forecast the expected traffic for each scenario. At its core, the TDM uses the common four-step modeling process, which consists of trip generation, trip distribution, mode split, and trip assignment.

Specific inputs to the TDM include socioeconomic forecasts and transportation system data. The socioeconomic data includes population, households, employment, and average household income. Household data is further classified by household size (one person to 6+ persons), number of workers (0 to 3+ persons), and income quartiles. Employment data is classified into 12 categories that include subcategories for retail, industrial, and office. Public school enrollment is classified into elementary, middle, and high school. Special trip generation tables are included for colleges, the Salt Lake City International Airport, and Lagoon. Transportation system data include both roadway and transit networks. The roadway network includes freeways, arterial routes, and collector routes. The transit network includes commuter rail, light rail, bus rapid transit, express bus routes, and many local bus routes. New to version 8 of the model is a freight component that estimates truck traffic. Bicycle and pedestrian trips are tracked internally by the model, but do not have any specific inputs.

The geographical area of the TDM is split into individual Traffic Analysis Zones (TAZs), which in turn hold the socioeconomic source data. The model uses the information in each TAZ for trip generation, trip distribution, and mode split. Trips generated by each TAZ are loaded onto the roadway network using special links called centroid connectors. The model then uses the roadway network in an iterative process to assign routes for each trip destination.

MAG TransPlan50 is the RTP using 2030, 2040, and 2050 for the timeline of Phase 1, Phase 2, and Phase 3 projects, respectively. The TDM has roadway and transit networks associated with each of these phases. This study uses these networks as the assumed base conditions depending on the year being analyzed.

INTERSECTION OPERATIONS

All study intersections perform at an acceptable LOS except Highland Blvd & Grant Blvd. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 30.3 sec/veh in the AM and Highland Blvd & Grant Blvd with a LOS F with a delay of 43.5 sec/veh in the PM, as shown in **Table 10**.

Table 10: 2050 Background Peak Hour Traffic Analysis

Intersection Number	Intersection	AM Peak Hour			PM Peak Hour		
		Average Control Delay (sec/veh)	Difference from 2026 Background plus Mitigation	Level of Service	Average Control Delay (sec/veh)	Difference from 2026 Background plus Mitigation	Level of Service
2050 Background Peak Hour Conditions							
1	Highland Blvd & Grant Blvd	16.0	+3.4	**C**	43.5	+27.8	**E**
2	Highland Blvd & SR-92	26.6	+4.5	**C**	45.2	+13.6	**D**
3	Center St/8000 West & SR-92	25.0	+6.5	**C**	30.6	+9.2	**C**
4	SR-92 & 500 West	12.7	+0.8	**B**	15.9	+4.5	**B**
5	500 West & Traverse Terrace Drive	10.1	-0.1	**B**	13.1	+3.2	**B**
6	3900 North & Canyon Hills Rd	8.9	+0.0	**A**	9.5	+0.9	**A**
7	Canyon Hills Rd & 4050 North	10.0	+1.1	**B**	10.9	+1.7	**B**
8	Highland Blvd & 11800 North	8.6	-7.4	**A**	15.2	+7.3	**B**
9	1200 East & SR-92	30.3	+3.3	**C**	40.3	-0.8	**C**

Source: HCM Methodologies using Synchro Software
Control delay for unsignalized intersections shown for the worst approach only per the HCM.

MITIGATIONS

Highland Blvd & Grant Blvd

- Upgrade intersection stop-control to signalized

Horrocks did not perform a signal warrant analysis on the intersection of Highland Blvd & Grant Blvd. Horrocks recommends this intersection's stop-control upgrade to a signal based on the unacceptable LOS occurring in the 2050 Background conditions. A signal warrant analysis should be performed as the years draw closer to 2050.

With this mitigation all intersections operate at an acceptable LOS, as shown in **Table 11**. The study intersection with the highest delay is 1200 East & SR-92 with a LOS C and a delay of 32.4 sec/veh in the AM and a LOS D with a delay of 54.0 sec/veh in the PM. The signal warrant report is included in the APPENDIX. The red arrows in figures below show the recommended mitigations.

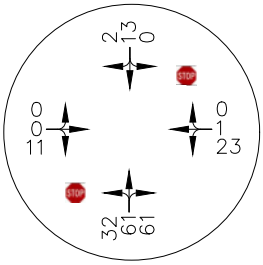
Table 11: 2050 Background plus Mitigations Peak Hour Conditions

Intersection Number	Intersection	AM Peak Hour		PM Peak Hour	
		Average Control Delay (sec/veh)	Level of Service	Average Control Delay (sec/veh)	Level of Service
2050 Background plus Mitigations Peak Hour Conditions					
1	Highland Blvd & Grant Blvd	5.7	**A**	5.9	**A**
2	Highland Blvd & SR-92	27.1	**C**	42.0	**D**
3	Center St/8000 West & SR-92	19.0	**B**	28.7	**C**
4	SR-92 & 500 West	12.2	**B**	15.9	**B**
5	500 West & Traverse Terrace Drive	10.5	**B**	13.1	**B**
6	3900 North & Canyon Hills Rd	8.9	**A**	9.5	**A**
7	Canyon Hills Rd & 4050 North	10.0	**B**	10.9	**B**
8	Highland Blvd & 11800 North	8.6	**A**	15.2	**B**
9	1200 East & SR-92	32.4	**C**	54.0	**D**

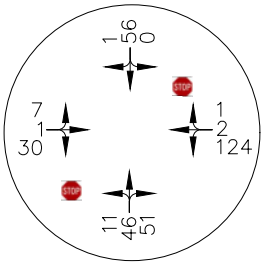
Source: HCM Methodologies using Synchro Software

Control delay for unsignalized intersections shown for the worst approach only per the HCM.

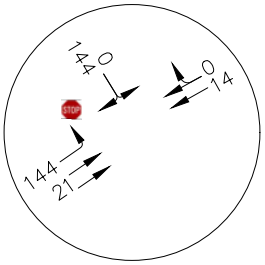
1 AM PEAK HOUR



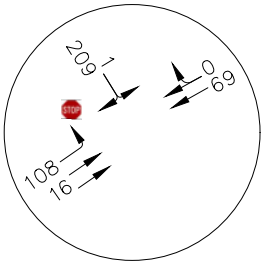
1 PM PEAK HOUR



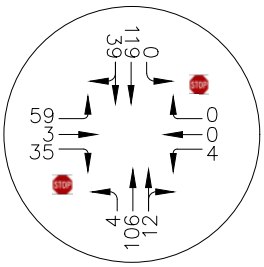
2 AM PEAK HOUR



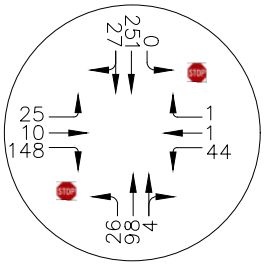
2 PM PEAK HOUR



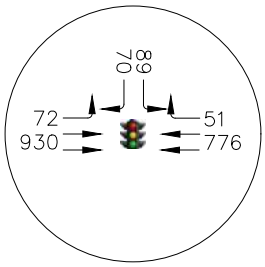
3 AM PEAK HOUR



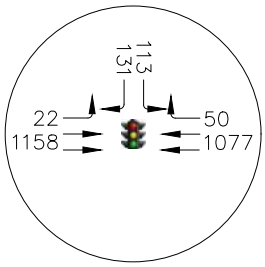
3 PM PEAK HOUR



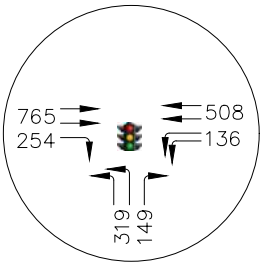
4 AM PEAK HOUR



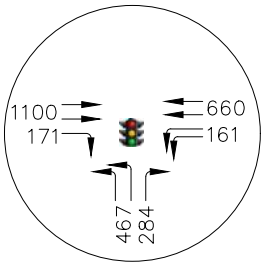
4 PM PEAK HOUR



5 AM PEAK HOUR



5 PM PEAK HOUR



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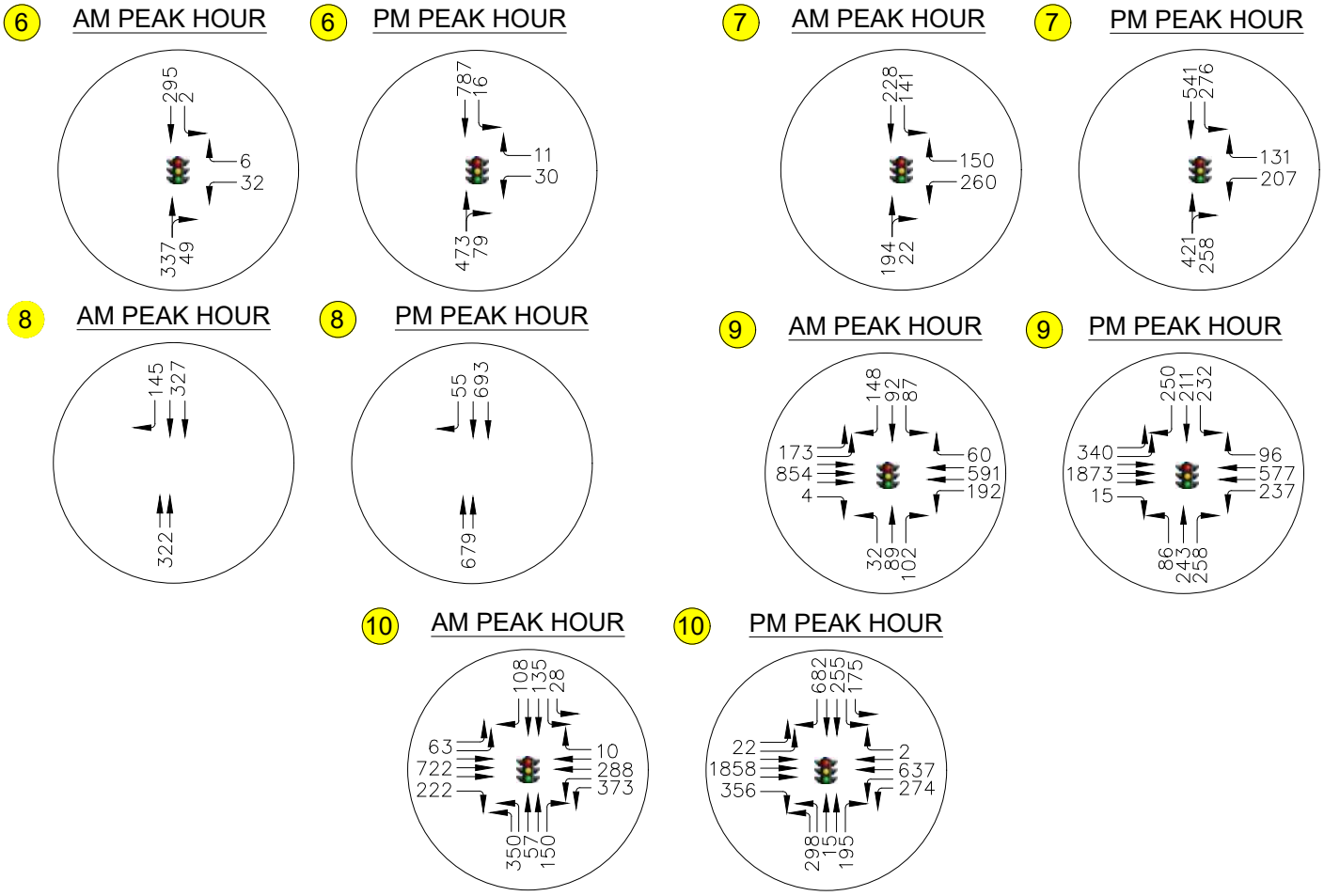
2050 Background with Mitigations AM & PM Peak Hour Traffic Volumes

FIGURE 18

SCALE: N/A

DA-- 1/2



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2050 Background AM & PM Peak Hour Traffic Volumes

FIGURE 19

SCALE: N/A

DA--
1/2

Analysis of 2050 Background plus Project Conditions

INTERSECTION OPERATIONS

Horrocks applied the project conditions from the proposed development without the annexation to the 2050 Background Conditions to create the 2050 Background plus Project, as shown in **Figure 20** and **Figure 21**. All study intersections perform at an acceptable LOS except for Highland Blvd & SR-92 and Center St/8000 West & SR-92, as shown in **Table 12.** The study intersections with the highest delay are Center St/8000 West & SR-92 with a LOS D and a delay of 45.4 sec/veh in the AM and Highland Blvd & SR-92 with a LOS E and a delay of 74.3 sec/veh in the PM. This scenario includes all previous mitigations.

Table 12: 2050 Background plus Project Peak Hour Traffic Analysis

Intersection Number	Intersection	AM Peak Hour			PM Peak Hour		
		Average Control Delay (sec/veh)	Difference from 2050 Background Mitigation	Level of Service	Average Control Delay (sec/veh)	Difference from 2050 Background Mitigation	Level of Service
2050 Background plus Project Peak Hour Conditions							
1	Highland Blvd & Grant Blvd	6.8	+1.1	**A**	6.8	+0.9	**A**
2	Highland Blvd & SR-92	33.9	+6.8	**C**	74.3	+32.3	**E**
3	Center St/8000 West & SR-92	45.4	+26.4	**D**	67.9	+39.2	**E**
4	SR-92 & 500 West	18.8	+6.6	**B**	25.3	+9.4	**C**
5	500 West & Traverse Terrace Drive	14.5	+4.4	**B**	21.5	+8.4	**C**
6	3900 North & Canyon Hills Rd	9.7	+0.8	**A**	10.1	+0.6	**B**
7	Canyon Hills Rd & 4050 North	10.9	+0.9	**B**	11.8	+0.9	**B**
8	Highland Blvd & 11800 North	11.0	+2.0	**B**	16.7	+1.5	**B**
9	1200 East & SR-92	43.2	+12.9	**D**	44.3	-9.7	**D**

Source: HCM Methodologies using Synchro Software
Control delay for unsignalized intersections shown for the worst approach only per the HCM.

MITIGATIONS

1200 East & SR-92

- Add additional westbound left-turn lane

Center St/8000 West & SR-92

- Add additional eastbound left-turn lane
- Modify northbound shared thru/right to one dedicated thru lane and one dedicated right-turn lane

Highland Blvd & SR-92

- Add additional westbound left-turn lane
- Add additional southbound left-turn lane
- Add additional northbound thru lane for a total of 2 lanes

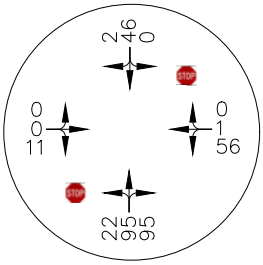
With these mitigations, all intersections operate at an acceptable LOS, as shown in **Table 13**. The study intersections with the highest delay are 1200 East & SR-92 with a LOS D and a delay 36.6 sec/veh in the AM and Highland Blvd & SR-92 with a LOS D with a delay of 45.2 sec/veh in the PM. This scenario includes all previous mitigations. The red arrows in figures below show the recommended mitigations.

Table 13: 2050 Background plus Project with Mitigations Peak Hour Conditions

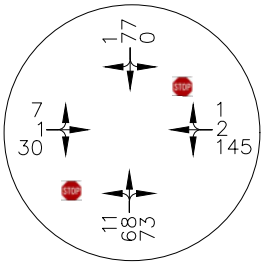
Intersection Number	Intersection	AM Peak Hour		PM Peak Hour	
		Average Control Delay (sec/veh)	Level of Service	Average Control Delay (sec/veh)	Level of Service
2050 Background plus Project with Mitigations Peak Hour Conditions					
1	Highland Blvd & Grant Blvd	6.8	**A**	7.8	**A**
2	Highland Blvd & SR-92	28.2	**C**	45.2	**D**
3	Center St/8000 West & SR-92	35.2	**D**	44.9	**D**
4	SR-92 & 500 West	18.8	**B**	25.3	**C**
5	500 West & Traverse Terrace Drive	14.5	**B**	21.4	**C**
6	3900 North & Canyon Hills Rd	9.7	**A**	10.1	**B**
7	Canyon Hills Rd & 4050 North	10.9	**B**	11.8	**B**
8	Highland Blvd & 11800 North	11.0	**B**	16.7	**B**
9	1200 East & SR-92	36.6	**D**	41.9	**D**

Source: HCM Methodologies using Synchro Software
Control delay for unsignalized intersections shown for the worst approach only per the HCM.

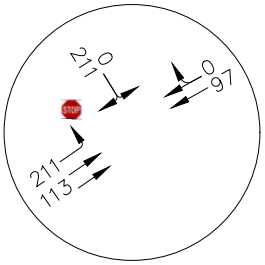
1 AM PEAK HOUR



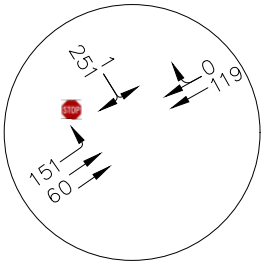
1 PM PEAK HOUR



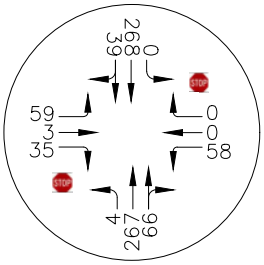
2 AM PEAK HOUR



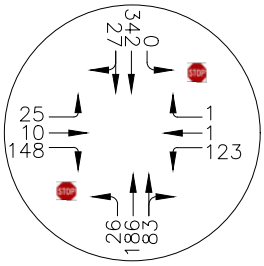
2 PM PEAK HOUR



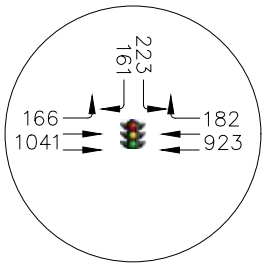
3 AM PEAK HOUR



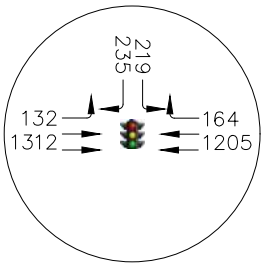
3 PM PEAK HOUR



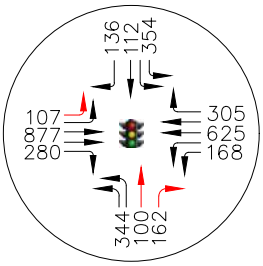
4 AM PEAK HOUR



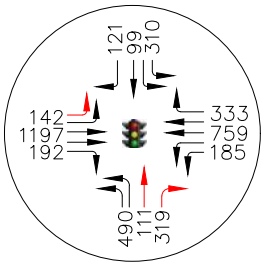
4 PM PEAK HOUR



5 AM PEAK HOUR



5 PM PEAK HOUR



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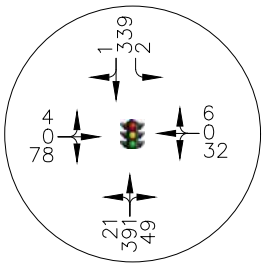
2050 Background plus Project with Mitigations AM & PM Peak Hour Traffic Volumes

FIGURE 20

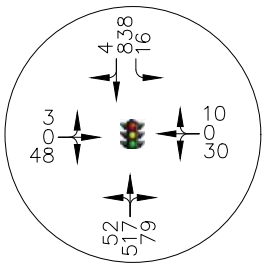
SCALE: N/A

DA 1/2

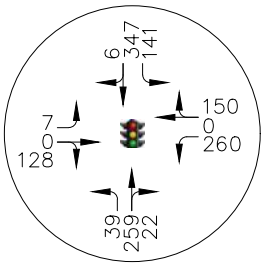
6 AM PEAK HOUR



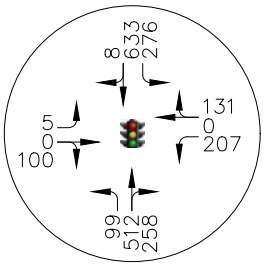
6 PM PEAK HOUR



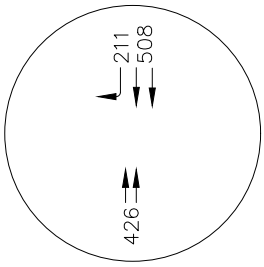
7 AM PEAK HOUR



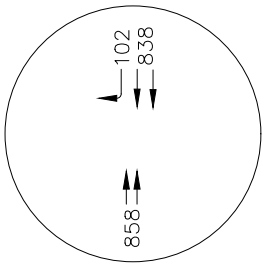
7 PM PEAK HOUR



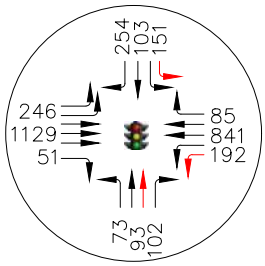
8 AM PEAK HOUR



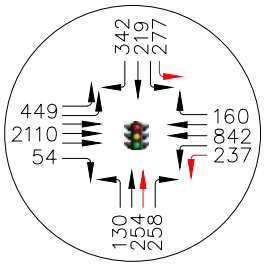
8 PM PEAK HOUR



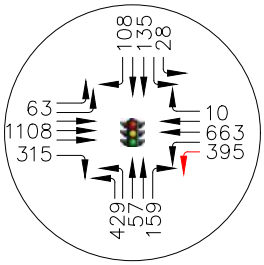
9 AM PEAK HOUR



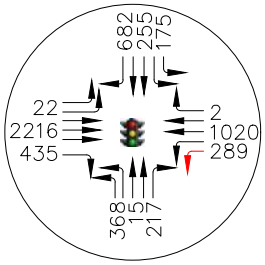
9 PM PEAK HOUR



10 AM PEAK HOUR



10 PM PEAK HOUR



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2050 Background plus Project with Mitigations AM & PM Peak Hour Traffic Volumes

FIGURE 21

SCALE: N/A

DA 1/2

Analysis of 2050 Background plus Project and 337 Units Conditions

INTERSECTION OPERATIONS

Horrocks applied the project conditions from the proposed development without the annexation with the additional 337 estate units to the 2050 Background Conditions to create the 2050 Background plus Project with 337 estate units, as shown in **Figure 22** and **Figure 23.** All study intersections perform at an acceptable LOS, as shown in **Table 14.** The study intersection with the highest delay is Center St/8000 West & SR-92 with a LOS D and a delay of 39.2 sec/veh in the AM and a LOS D and a delay of 51.5 sec/veh in the PM. This scenario includes all previous mitigations.

Table 14: 2050 Background plus Project and 337 Units Peak Hour Traffic Analysis

Intersection Number	Intersection	AM Peak Hour			PM Peak Hour		
		Average Control Delay (sec/veh)	Difference from 2050 plus Project Mitigation	Level of Service	Average Control Delay (sec/veh)	Difference from 2050 plus Project Mitigation	Level of Service
2050 Background plus Project and 337 Units Peak Hour Conditions							
1	Highland Blvd & Grant Blvd	6.8	+0.0	**A**	6.9	-0.9	**A**
2	Highland Blvd & SR-92	29.1	+0.9	**C**	43.1	-2.1	**D**
3	Center St/8000 West & SR-92	39.2	+4.0	**D**	51.5	+6.6	**D**
4	SR-92 & 500 West	18.8	+0.0	**B**	39.4	+14.1	**D**
5	500 West & Traverse Terrace Drive	14.5	+0.0	**B**	21.4	+0.0	**C**
6	3900 North & Canyon Hills Rd	9.6	-0.1	**A**	10.1	+0.0	**B**
7	Canyon Hills Rd & 4050 North	12.1	+1.2	**B**	11.8	+0.0	**B**
8	Highland Blvd & 11800 North	11.0	+0.0	**B**	16.7	+0.0	**B**
9	1200 East & SR-92	31.9	-4.7	**C**	35.9	-6.0	**D**

Source: HCM Methodologies using Synchro Software
Control delay for unsignalized intersections shown for the worst approach only per the HCM.

MITIGATIONS

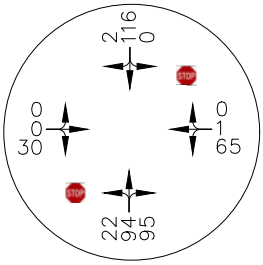
No recommended mitigations at this time.

PROJECT ROADWAY OPERATION

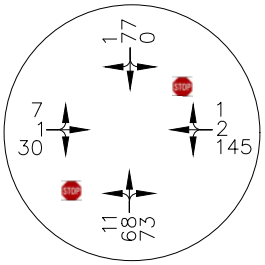
The north leg of Center Street was analyzed to determine if and when the road will need to expand from a 3-lane to a 5-lane roadway based on the amount of single-family Estate units included in the annexation. Horrocks determined the ADT by adding the additional 337 estate units to the built-out project traffic using the same trip distribution and trip assignment as the Project Traffic Volumes section previously in this report. This scenario analyzed the Level of Service on planned road 8000 West after applying the ADT of the project without annexation with 337 additional single-family homes to the 2026 Background conditions.

- Under these conditions, 8000 West has an ADT of 12,540
    - As a 3-lane road, 8000 West will operate at LOS D.
    - As a 5-lane road, 8000 West will operate at LOS A.

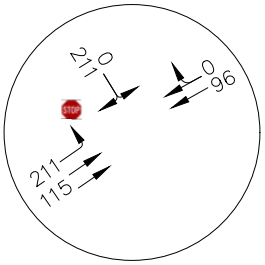
1 AM PEAK HOUR



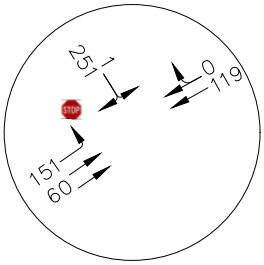
1 PM PEAK HOUR



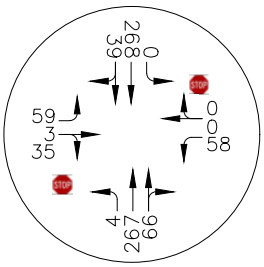
2 AM PEAK HOUR



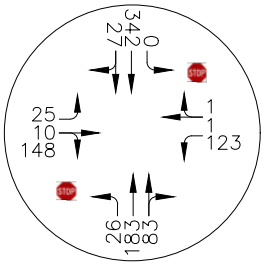
2 PM PEAK HOUR



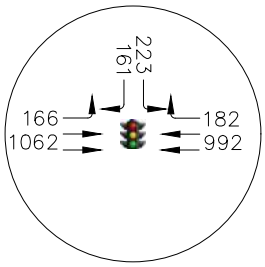
3 AM PEAK HOUR



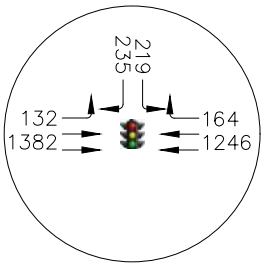
3 PM PEAK HOUR



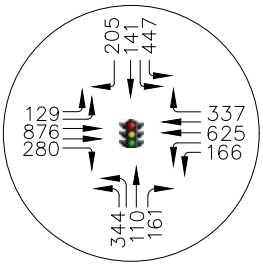
4 AM PEAK HOUR



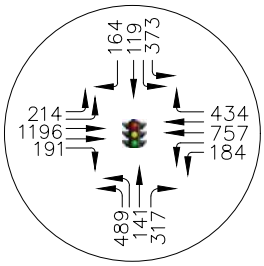
4 PM PEAK HOUR



5 AM PEAK HOUR



5 PM PEAK HOUR



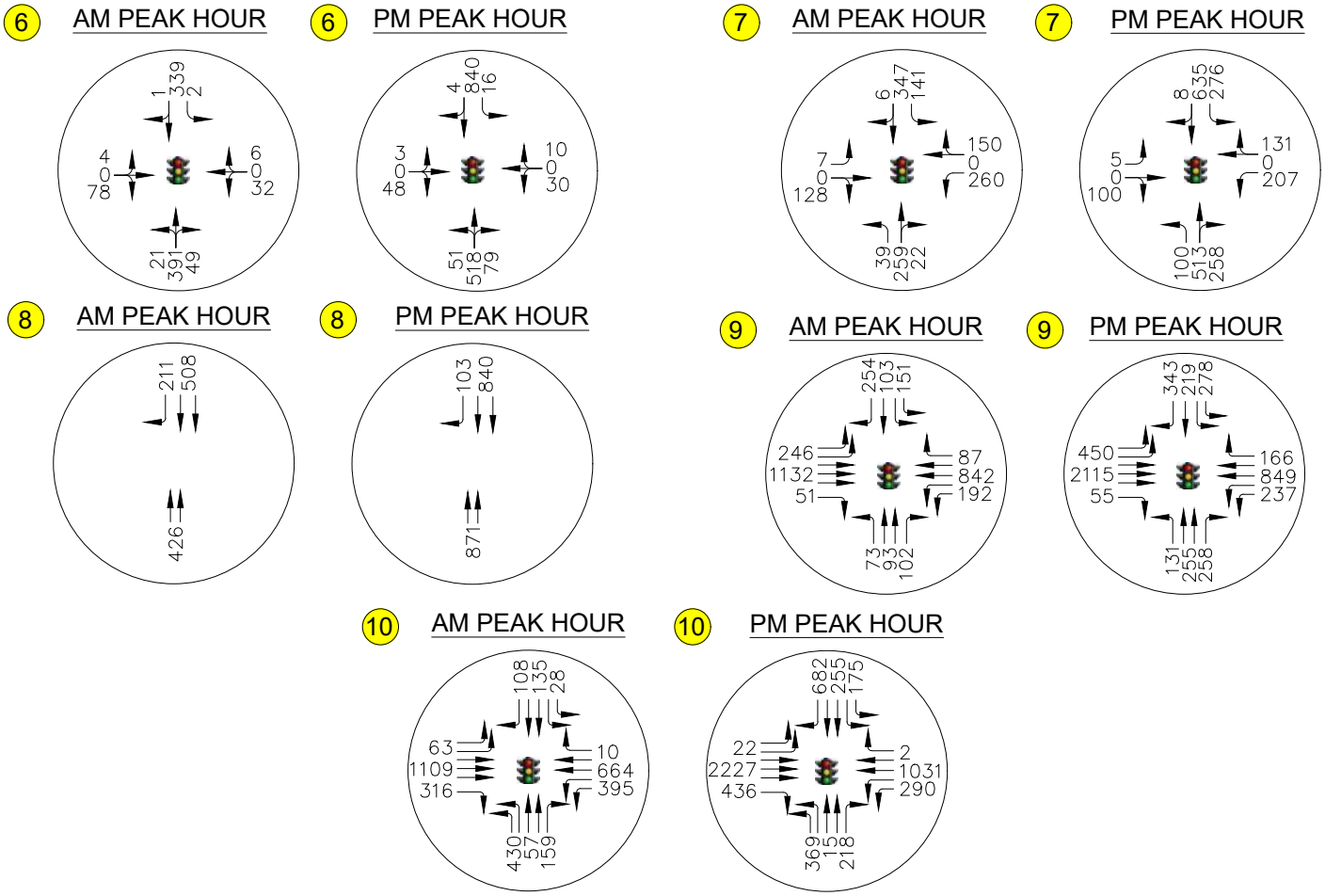
HORROCKS ENGINEERS
2162 WEST GROVE PARKWAY
SUITE #400
PLEASANT GROVE, UT. 84062
(801) 763-5100

West of Micron
2050 Background plus Project & 337 Estate Units AM & PM Peak Hour Traffic Volumes

FIGURE 22

SCALE: N/A

DA 1/2



HORROCKS ENGINEERS
2162 WEST GROVE PARKWAY
SUITE #400
PLEASANT GROVE, UT. 84062
(801) 763-5100

East of Micron

2050 Background plus Project with 337 Estate Units with Mitigations AM & PM Peak Hour Traffic Volumes

FIGURE 23

SCALE: N/A

DA 1/2

CONCLUSIONS AND RECOMMENDATIONS

1. Existing Conditions: - All study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 27.0 sec/veh in the AM and a LOS D and a delay of 48.6 sec/veh in the PM. No recommended mitigations at this time.

2. 2026 Background Conditions: - Traffic volumes were projected over five-years from 2021 to 2026 by adding a 10% growth rate to existing traffic conditions. This 10% growth rate (or 2% per year) was generated using UDOT's historic AADT counts. All study intersections perform at an acceptable LOS except for Highland Blvd & 11800 North. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 28.6 sec/veh in the AM and Highland Blvd & 11800 North with a LOS E and a delay of 39.7 sec/veh in the PM.

   Recommended Mitigations:

   - Highland Blvd & 11800 North
     - Upgrade intersection stop control to signal
     - Modify westbound shared left/right to dedicated left and right.

   After mitigations, all study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 28.6 sec/veh in the AM and a LOS D with a delay of 41.1 sec/veh in the PM. No recommended mitigations at this time.

3. Project Trip Generation: - Without the Draper City annexation, Horrocks estimates the proposed development to generate approximately 24,443 new external daily trips with 2,082 during the AM peak and 2,233 during the PM peak, respectively.

4. 2026 Background plus Project Conditions: - Horrocks added project traffic to the 2026 Background conditions to create 2026 Background plus Project Conditions. All study intersections function at acceptable LOS except intersection Center St/8000 West. The study intersection with the highest delay is 1200 East & SR-92 with a LOS D and a delay of 45.0 sec/veh in the AM, and Center St/8000 West & SR-92 with a LOS E with a delay of 59.3 sec/veh in the PM. This scenario includes all previous mitigations.

   Recommended Mitigations:

   - Center St/8000 West & SR-92
     - Modify northbound shared thru/right lane to dedicated thru and right

5. After mitigations, all study intersections operate at an acceptable LOS. The study intersection with the highest delay is 1200 East & SR-92 with a LOS D and a delay of 45.0 sec/veh in the AM, and Center St/8000 West & SR-92 with a LOS D with a delay of 51.5 sec/veh in the PM.

6. 2026 Background plus Project and 337 Units Conditions: - Horrocks added 337 project trips to 2026 Background plus project conditions to create 2026 Background plus Project and 337 Units Conditions. All study intersections perform at an acceptable LOS except intersection Center St/8000 West & SR-92. The study intersection with the highest delay is Center Street/8000 West & SR-92 with a LOS D and a delay of 41.6 sec/veh in the AM and a LOS E with a delay of 57.6 sec/veh in the PM. This scenario includes all previous mitigations.

   Recommended Mitigations:

   - Center St/8000 West & SR-92
     - Add additional northbound thru lane
     - Add additional southbound thru lane

   After mitigations, all study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS D and a delay of 42.4 sec/veh in the AM, and Center Street/8000 West & SR-92 with a LOS D a delay of 47.6 sec/veh in the PM. No recommended mitigations at this time.

7. 2050 Background Conditions: - Traffic volumes were projected over thirty-years from 2021 to 2050 using the Travel Demand Model for the area. All study intersections perform at an acceptable LOS except Highland Blvd & Grant Blvd. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 30.3 sec/veh in the AM and Highland Blvd & Grant Blvd with a LOS E with a delay of 43.5 sec/veh in the PM. This scenario includes all previous mitigations.

   Recommended Mitigations:

   - Highland Blvd & Grant Blvd
     - Upgrade intersection stop-control to signalized

   After mitigations, all study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 32.4 sec/veh in the AM and a LOS D with a delay of 54.0 sec/veh in the PM. This scenario includes all previous mitigations. No recommended mitigations at this time.

8. 2050 Background plus Project conditions: - Horrocks added project traffic to 2050 Background conditions to create 2050 Background plus Project Conditions. All study intersections perform at an acceptable LOS except for Highland Blvd & SR-92 and Center St/8000 West & SR-92. The study intersections with the highest delay are Center St/8000 West & SR-92 with a LOS D and a delay of 45.4 sec/veh in the AM and Highland Blvd & SR-92 with a LOS E and a delay of 74.3 sec/veh in the PM. This scenario includes all previous mitigations.

   Recommended Mitigations:

   - 1200 East & SR-92
     - Add additional westbound left-turn lane
   - Center St/8000 West & SR-92
     - Add additional eastbound left-turn lane
     - Modify northbound shared thru/ right to one dedicate thru and one dedicated right-turn lane

- Highland Blvd & SR-92
    - Add additional westbound left-turn lane
    - Add additional southbound left-turn lane
    - Add additional thru lane for a total of 2 lanes

With this mitigation, all intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS D and a delay 36.6 sec/veh in the AM and Highland Blvd & SR-92 with a LOS D with a delay of 45.2 sec/veh in the PM. This scenario includes all previous mitigations. No recommended mitigations at this time.

9. 2050 Background plus Project with 337 Units: - All study intersections operate at an acceptable LOS. The study intersection with the highest delay is Center St/8000 West & SR-92 with a LOS D and a delay of 39.2 sec/veh in the AM and a LOS D and a delay of 51.5 sec/veh in the PM. This scenario includes all previous mitigations. No recommended mitigations at this time

10. Safety History: - There was a total of 736 crashes on SR-2 from 2016 through 2021. The types of vehicle crashes are as follows:

    - Two fatal crashes
    - 68 Suspected minor injury crashes
    - 131 Possible injury crashes
    - 535 Property damage only crashes

MICRON TIS

LEHI, UT

JANUARY 4, 2022

PROJECT # UT-CV-3498-21

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TRAFFIC COUNTS

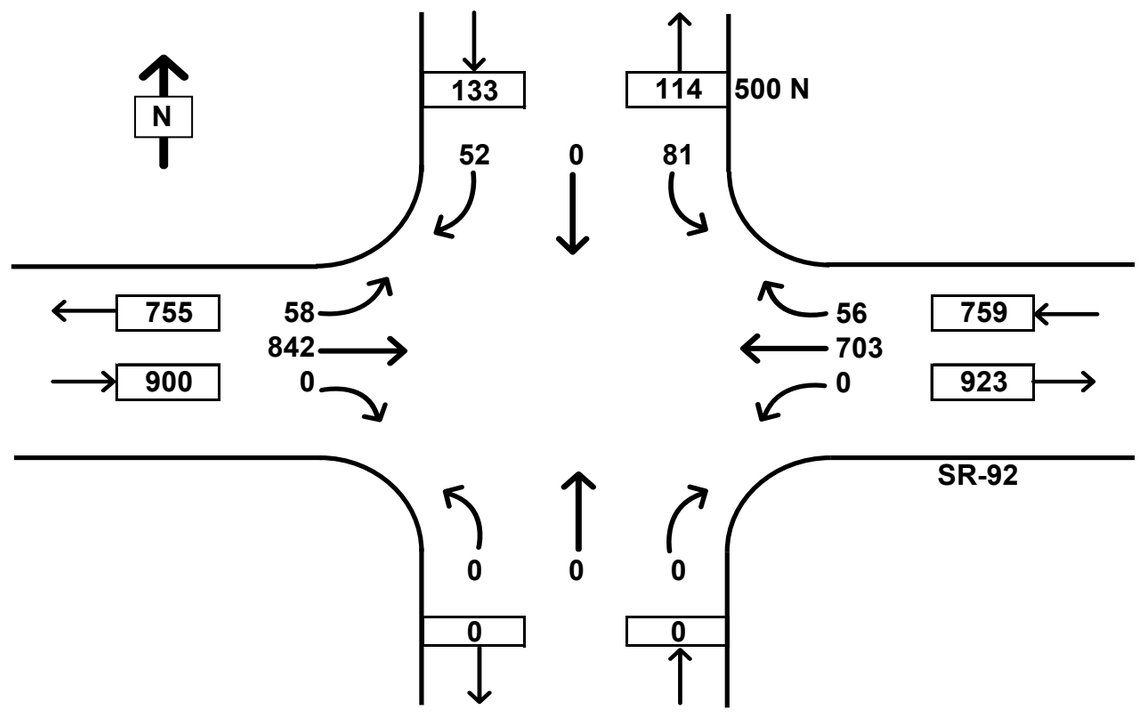
TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **500 N**
Date: **Tuesday, May 4, 2021**
Begin Time: **07:00 AM**
Interval Length: **15 min**

E-W Street: **SR-92**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
07:00 AM	07:15 AM	6	0	3		0	71	10		0	0	0		13	117	0		220	
07:15 AM	07:30 AM	12	0	2		0	106	10		0	0	0		15	163	0		308	
07:30 AM	07:45 AM	23	0	10		0	135	16		0	0	0		10	256	0		450	
07:45 AM	08:00 AM	32	0	24		0	206	25		0	0	0		35	226	0		548	1526
08:00 AM	08:15 AM	18	0	15		0	192	11		0	0	0		8	185	0		429	1735
08:15 AM	08:30 AM	8	0	3		0	170	4		0	0	0		5	175	0		365	1792
08:30 AM	08:45 AM	10	0	5		0	146	6		0	0	0		11	146	0		324	1666
08:45 AM	09:00 AM	19	0	19		0	159	13		0	0	0		21	183	0		414	1532



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
81	0	52	0	703	56	0	0	0	58	842	0
133			759			0			900		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		7:30:00 AM			8:30 AM	Peak Vol:		1792	PHF:		0.82

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

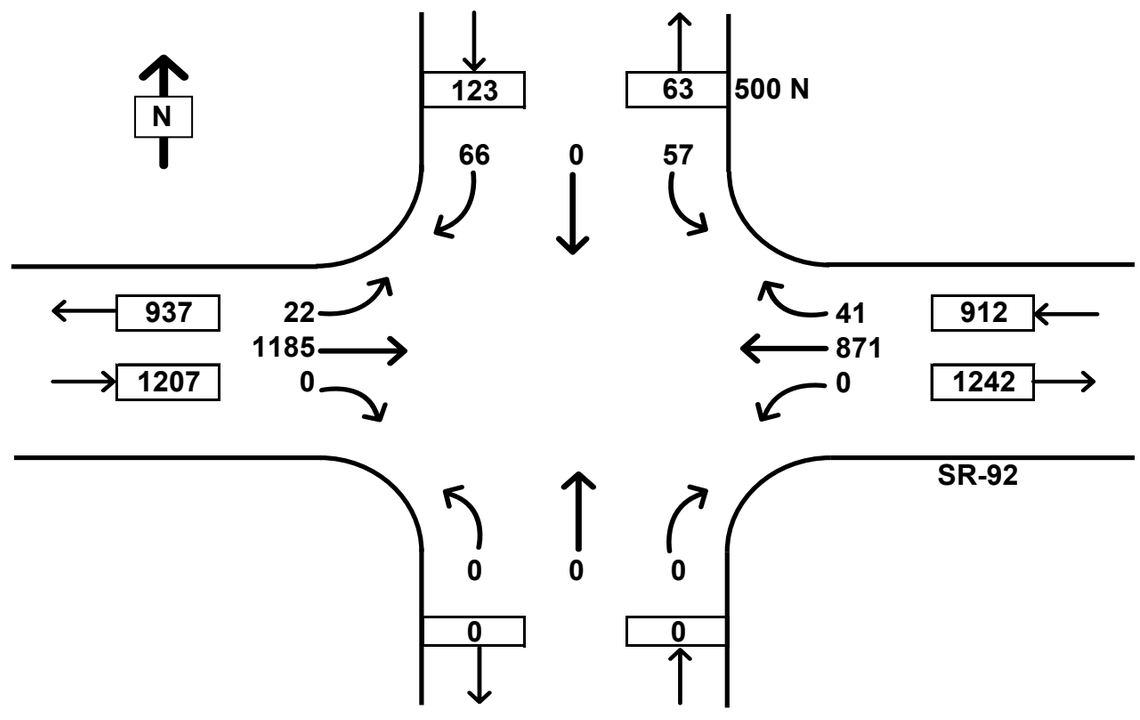
TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **500 N**
Date: **Tuesday, May 4, 2021**
Begin Time: **04:00 PM**
Interval Length: **15 min**

E-W Street: **SR-92**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
04:00 PM	04:15 PM	12	0	13		0	213	11		0	0	0		0	231	0		480	
04:15 PM	04:30 PM	5	0	8		0	188	5		0	0	0		3	227	0		436	
04:30 PM	04:45 PM	13	0	10		0	219	10		0	0	0		5	217	0		474	
04:45 PM	05:00 PM	17	0	15		0	193	15		0	0	0		5	318	0		563	1953
05:00 PM	05:15 PM	14	0	37		0	239	8		0	0	0		3	269	0		570	2043
05:15 PM	05:30 PM	14	0	4		0	250	8		0	0	0		9	302	0		587	2194
05:30 PM	05:45 PM	12	0	10		0	189	10		0	0	0		5	296	0		522	2242
05:45 PM	06:00 PM	14	0	7		0	179	9		0	0	0		2	283	0		494	2173



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
57	0	66	0	871	41	0	0	0	22	1185	0
123			912			0			1207		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		4:45:00 PM			5:45 PM	Peak Vol:		2242	PHF:		0.95

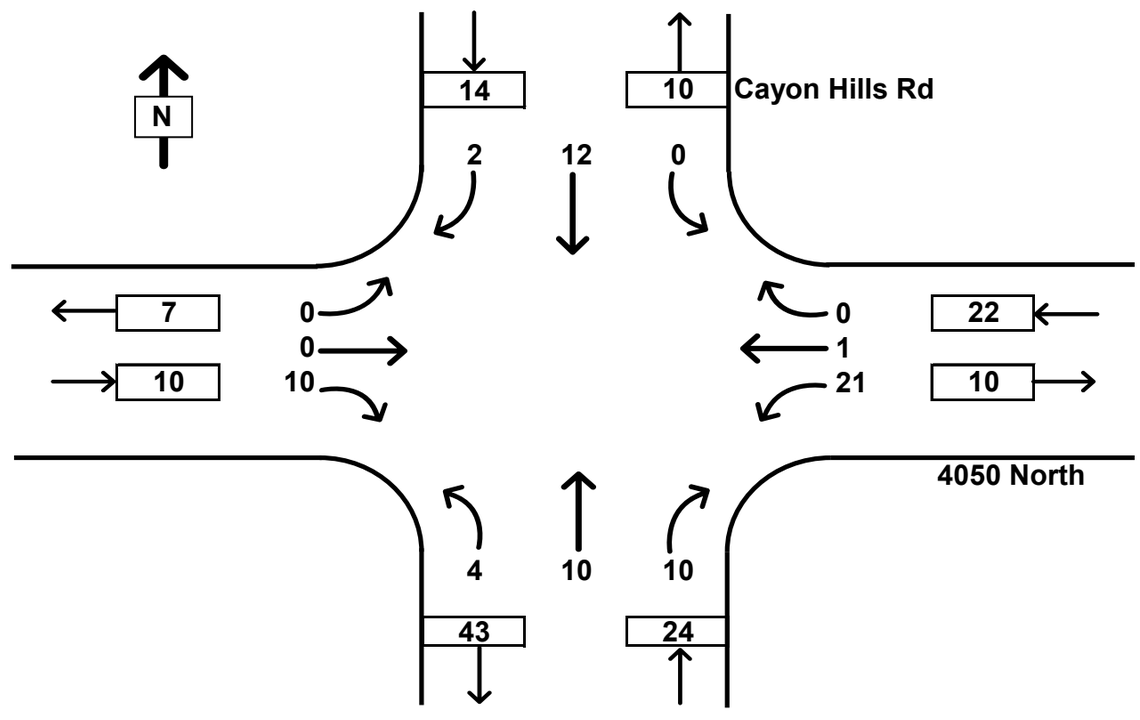
OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **Cayon Hills Rd**
E-W Street: **4050 North**
Date: **Tuesday, May 4, 2021**
Begin Time: **07:00 AM**
Interval Length: **15 min**

HORROCKS ENGINEERS

Time Interval		SB				WB				NB				EB				Total	Hourly
		Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	All Moves	Totals
07:00 AM	07:15 AM	0	2	0	1	5	0	0	0	0	2	3	0	0	0	1	0	13	
07:15 AM	07:30 AM	0	2	0	1	1	0	0	0	0	1	0	1	0	0	1	0	5	
07:30 AM	07:45 AM	0	5	0	1	5	0	0	2	1	3	0	10	0	0	2	9	16	
07:45 AM	08:00 AM	0	3	1	0	9	0	0	3	2	6	4	0	0	0	5	0	30	64
08:00 AM	08:15 AM	0	3	1	0	5	0	0	0	1	1	2	0	0	0	2	0	15	66
08:15 AM	08:30 AM	0	1	0	0	2	1	0	0	0	0	4	0	0	0	1	0	9	70
08:30 AM	08:45 AM	0	4	0	0	5	0	0	2	0	4	2	0	0	0	0	2	15	69
08:45 AM	09:00 AM	0	9	0	0	7	0	0	0	1	8	1	0	0	0	4	0	30	69



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	12	2	21	1	0	4	10	10	0	0	10
14			22			24			10		
Trucks:		7%	Trucks:		23%	Trucks:		42%	Trucks:		90%
Peak Hour:		7:30:00 AM			8:30 AM	Peak Vol:		70	PHF:		0.58

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

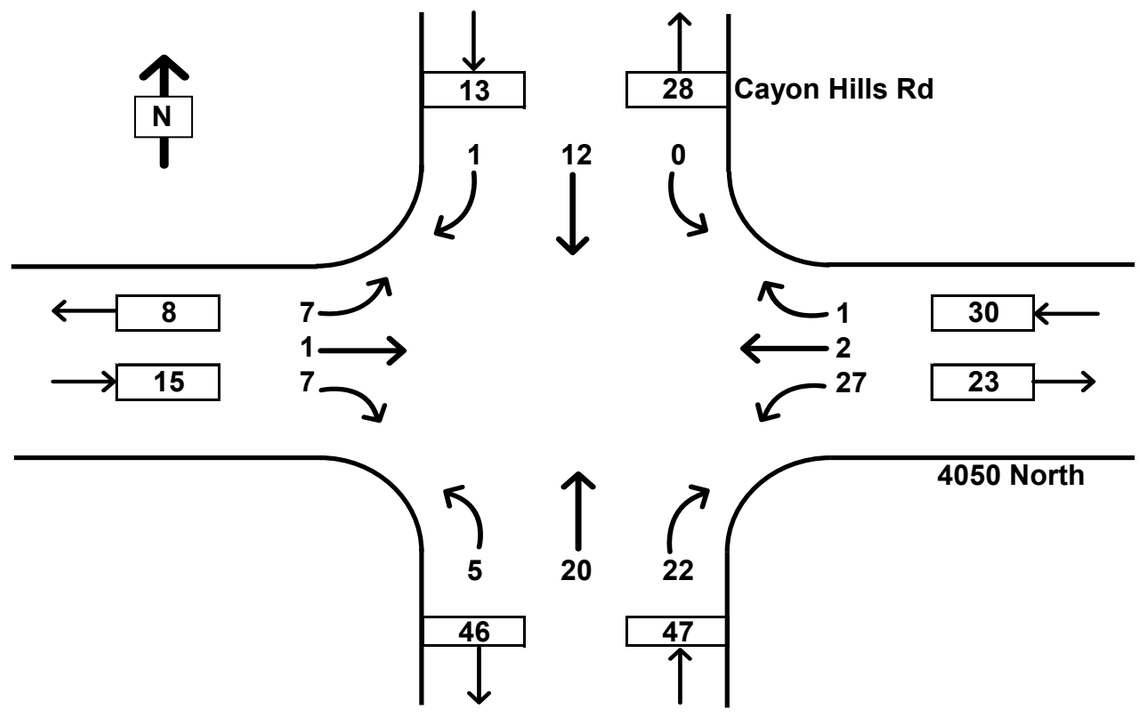
TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **Cayon Hills Rd**
Date: **Tuesday, May 4, 2021**
Begin Time: **04:00 PM**
Interval Length: **15 min**

E-W Street: **4050 North**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
04:00 PM	04:15 PM	0	2	0	0	3	0	0	0	0	6	1	0	0	1	0	0	13	
04:15 PM	04:30 PM	1	2	1	0	2	0	0	0	0	7	0	0	0	0	0	0	13	
04:30 PM	04:45 PM	0	2	0	0	6	0	0	0	3	3	3	0	0	0	2	0	19	
04:45 PM	05:00 PM	0	1	0	1	9	0	0	0	1	6	5	0	0	0	2	0	24	69
05:00 PM	05:15 PM	0	3	0	0	7	0	0	0	1	5	4	0	0	0	1	0	21	77
05:15 PM	05:30 PM	0	3	0	0	3	1	1	0	2	4	7	0	1	0	3	0	25	89
05:30 PM	05:45 PM	0	5	1	0	8	1	0	0	1	5	6	0	6	1	1	0	35	105
05:45 PM	06:00 PM	0	2	0	0	9	1	0	0	0	2	1	0	0	0	1	0	16	97



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	12	1	27	2	1	5	20	22	7	1	7
13			30			47			15		
Trucks:		8%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		4:45:00 PM			5:45 PM	Peak Vol:		105	PHF:		0.75

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

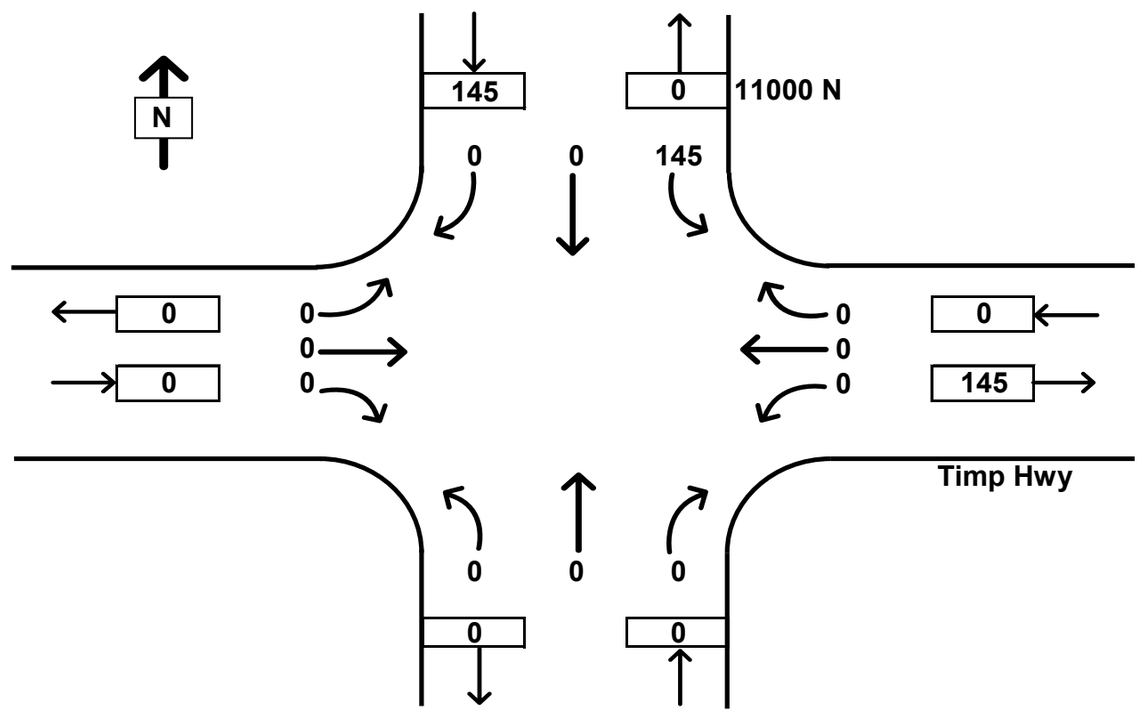
TRAFFIC COUNT SUMMARY

City: **Micron**
N-S Street: **11000 N**
Date: **Tuesday, May 11, 2021**
Begin Time: **07:00 AM**
Interval Length: **15 min**

E-W Street: **Timp Hwy**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
07:00 AM	07:15 AM	30	0	0	0													30	
07:15 AM	07:30 AM	31	0	0	0													31	
07:30 AM	07:45 AM	25	0	0	0													25	
07:45 AM	08:00 AM	36	0	0	0													36	122
08:00 AM	08:15 AM	29	0	0	0													29	121
08:15 AM	08:30 AM	33	0	0	0													33	123
08:30 AM	08:45 AM	40	0	0	0													40	138
08:45 AM	09:00 AM	43	0	0	0													43	145



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
145	0	0	0	0	0	0	0	0	0	0	0
145			0			0			0		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		8:00:00 AM			9:00 AM	Peak Vol:		145	PHF:		0.84

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

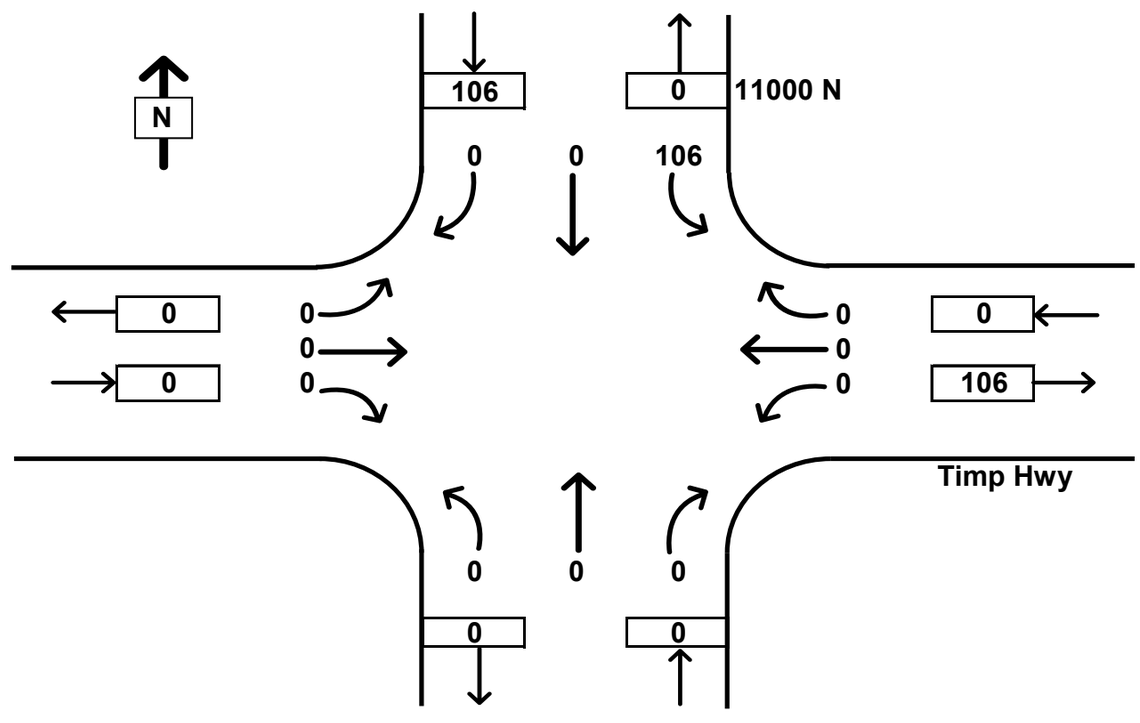
TRAFFIC COUNT SUMMARY

City: **Micron**
N-S Street: **11000 N**
Date: **Tuesday, May 11, 2021**
Begin Time: **04:00 PM**
Interval Length: **15 min**

E-W Street: **Timp Hwy**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
04:00 PM	04:15 PM	24	0	0	0													24	
04:15 PM	04:30 PM	26	0	0	0													26	
04:30 PM	04:45 PM	27	0	0	0													27	
04:45 PM	05:00 PM	25	0	0	0													25	102
05:00 PM	05:15 PM	28	0	0	0													28	106
05:15 PM	05:30 PM	22	0	0	0													22	102
05:30 PM	05:45 PM	29	0	0	0													29	104
05:45 PM	06:00 PM	26	0	0	0													26	105



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
106	0	0	0	0	0	0	0	0	0	0	0
106			0			0			0		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		4:15:00 PM		5:15 PM		Peak Vol:		106	PHF:		0.95

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

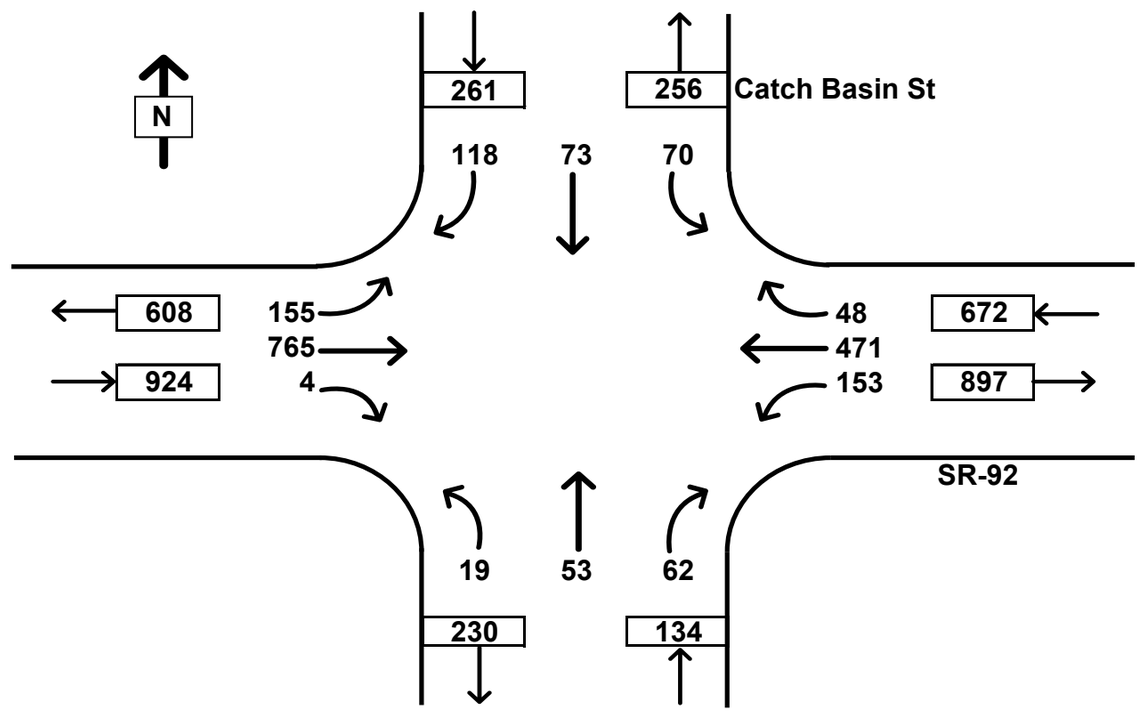
TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **Catch Basin St**
Date: **Tuesday, May 4, 2021**
Begin Time: **07:00 AM**
Interval Length: **15 min**

E-W Street: **SR-92**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
07:00 AM	07:15 AM	22	13	13		25	48	8		2	4	14		17	125	2		293	
07:15 AM	07:30 AM	41	23	16		29	64	9		1	10	19		22	157	0		391	
07:30 AM	07:45 AM	30	20	36		24	105	22		1	3	15		35	163	1		455	
07:45 AM	08:00 AM	24	19	30		33	138	17		3	10	17		33	209	3		536	1675
08:00 AM	08:15 AM	8	16	34		44	128	15		3	11	12		50	197	0		518	1900
08:15 AM	08:30 AM	20	14	26		31	103	7		0	17	19		35	183	1		456	1965
08:30 AM	08:45 AM	21	22	24		40	109	14		9	15	15		19	164	2		454	1964
08:45 AM	09:00 AM	21	21	34		38	131	12		7	10	16		51	221	1		563	1991



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
70	73	118	153	471	48	19	53	62	155	765	4
261			672			134			924		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		8:00:00 AM			9:00 AM	Peak Vol:		1991	PHF:		0.88

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

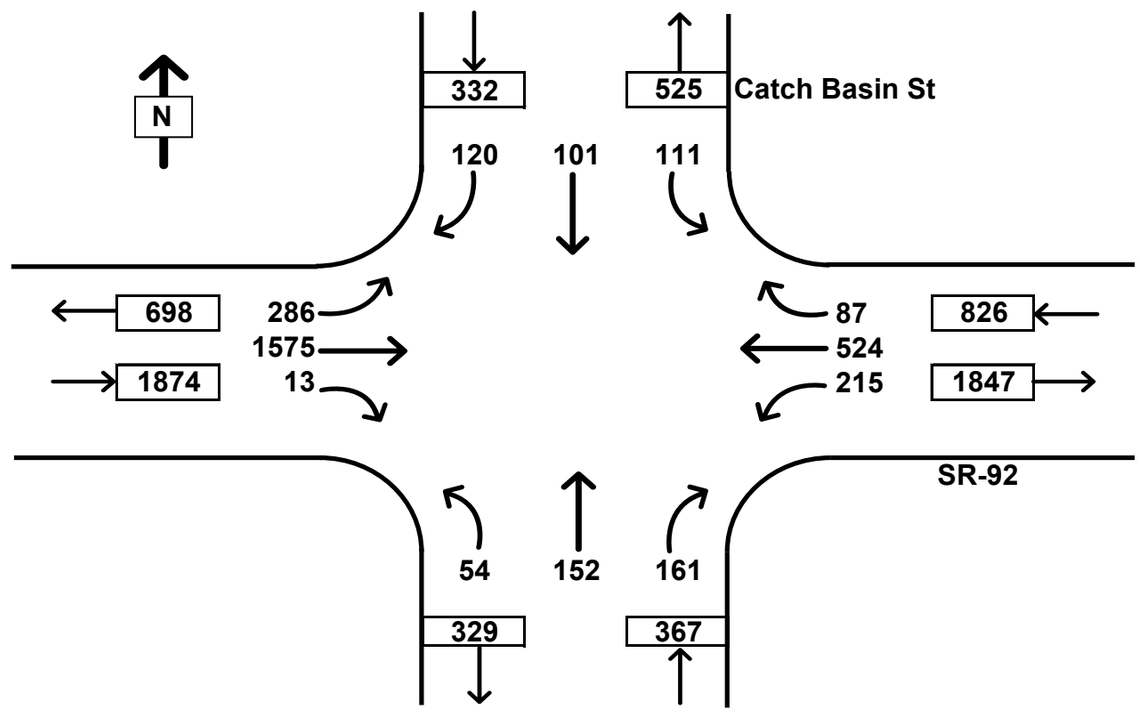
TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **Catch Basin St**
Date: **Tuesday, May 4, 2021**
Begin Time: **04:00 PM**
Interval Length: **15 min**

E-W Street: **SR-92**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
04:00 PM	04:15 PM	16	22	29		47	126	19		10	18	33		78	367	5		770	
04:15 PM	04:30 PM	23	24	27		51	150	13		9	27	33		49	289	4		699	
04:30 PM	04:45 PM	20	29	23		59	126	24		10	30	45		62	391	1		820	
04:45 PM	05:00 PM	27	23	46		47	104	16		11	34	48		59	364	2		781	3070
05:00 PM	05:15 PM	28	17	27		58	129	24		18	68	43		79	373	4		868	3168
05:15 PM	05:30 PM	21	27	38		46	160	22		11	32	35		67	368	3		830	3299
05:30 PM	05:45 PM	22	26	30		42	114	25		10	20	34		85	434	5		847	3326
05:45 PM	06:00 PM	40	31	25		69	121	16		15	32	49		55	400	1		854	3399



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
111	101	120	215	524	87	54	152	161	286	1575	13
332			826			367			1874		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		5:00:00 PM			6:00 PM	Peak Vol:		3399	PHF:		0.98

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

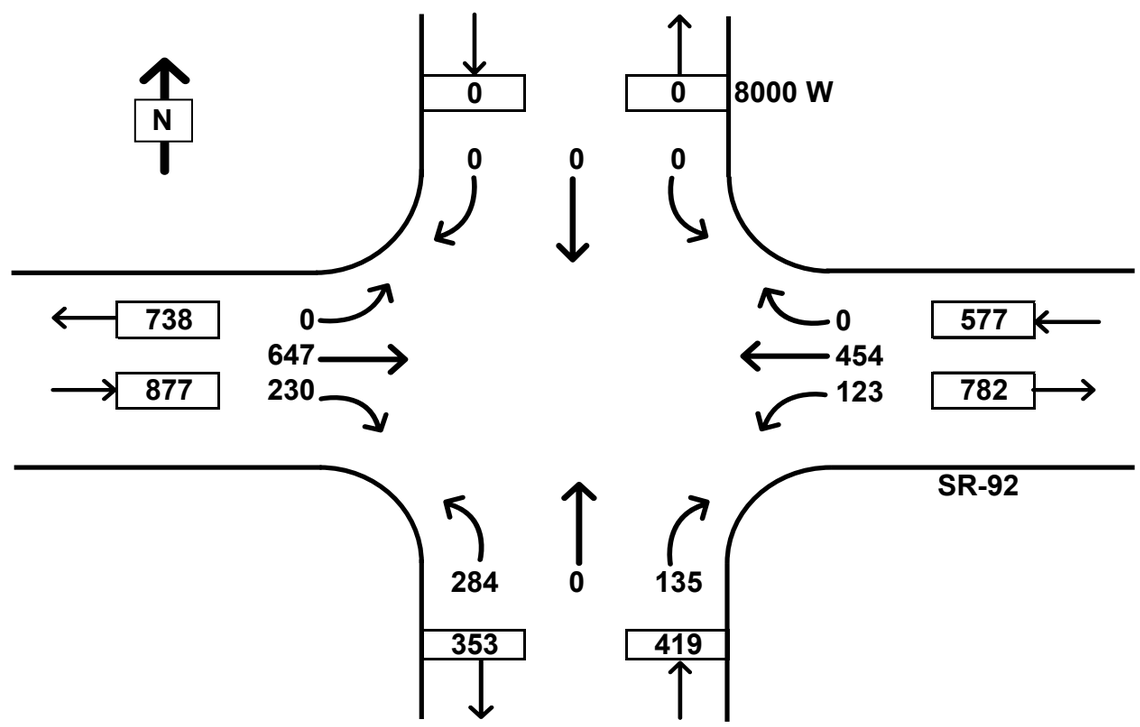
TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **8000 W**
Date: **Tuesday, May 4, 2021**
Begin Time: **07:00 AM**
Interval Length: **15 min**

E-W Street: **SR-92**

HORROCKS ENGINEERS

Time Interval		SB				WB				NB				EB				Total	Hourly
		Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	All Moves	Totals
07:00 AM	07:15 AM	0	0	0	0	14	58	0	0	25	0	22	0	0	98	13	0	230	
07:15 AM	07:30 AM	0	0	0	0	18	60	0	0	43	0	35	0	0	99	59	0	314	
07:30 AM	07:45 AM	0	0	0	0	42	82	0	0	80	0	41	0	0	140	111	0	496	
07:45 AM	08:00 AM	0	0	0	0	32	127	0	0	91	0	42	0	0	199	61	0	552	1592
08:00 AM	08:15 AM	0	0	0	0	27	128	0	0	65	0	32	0	0	161	38	0	451	1813
08:15 AM	08:30 AM	0	0	0	0	22	117	0	0	48	0	20	0	0	147	20	0	374	1873
08:30 AM	08:45 AM	0	0	0	0	26	116	0	0	35	0	25	0	0	128	18	0	348	1725
08:45 AM	09:00 AM	0	0	0	0	26	100	0	0	50	0	34	0	0	150	27	0	387	1560



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	123	454	0	284	0	135	0	647	230
0			577			419			877		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00

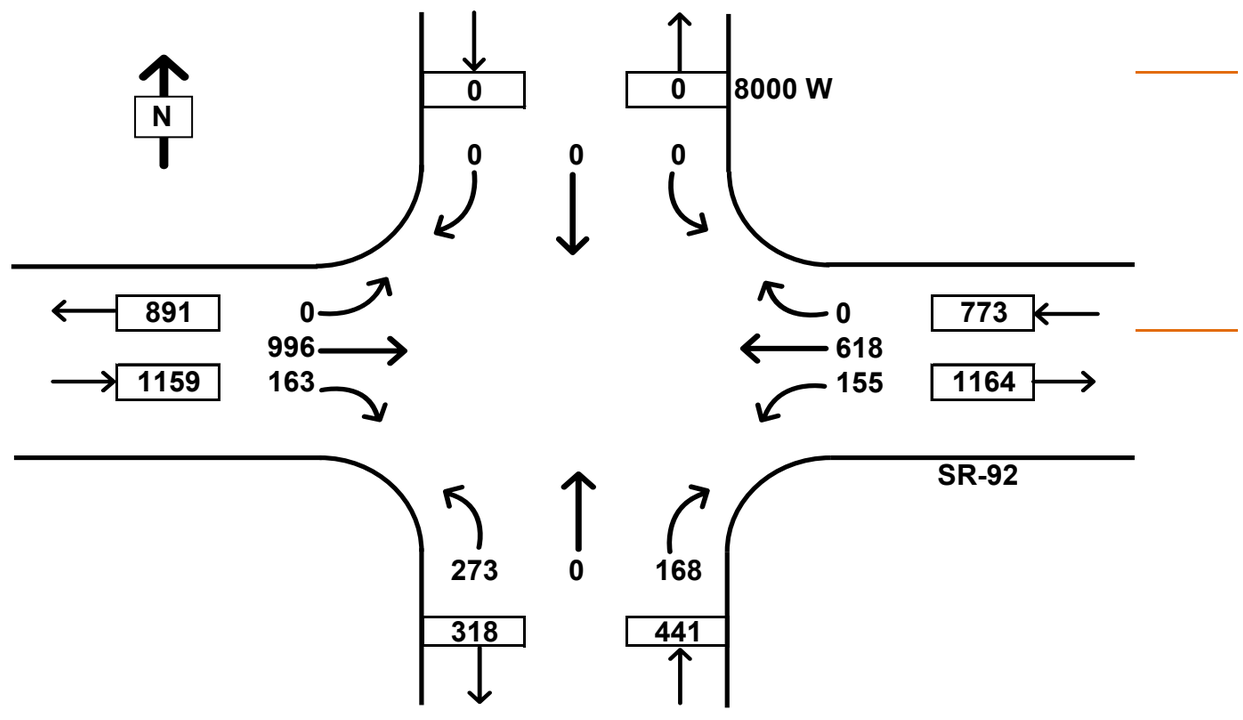
TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **8000 W**
Date: **Tuesday, May 4, 2021**
Begin Time: **04:00 PM**
Interval Length: **15 min**

E-W Street: **SR-92**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
04:00 PM	04:15 PM	0	0	0	0	29	161	0	0	54	0	38	0	0	228	25	0	535	
04:15 PM	04:30 PM	0	0	0	0	38	158	0	0	41	0	30	0	0	186	27	0	480	
04:30 PM	04:45 PM	0	0	0	0	26	184	0	0	50	0	50	0	0	211	31	0	552	
04:45 PM	05:00 PM	0	0	0	0	29	127	0	0	73	0	44	0	0	259	42	0	574	2141
05:00 PM	05:15 PM	0	0	0	0	33	186	0	0	55	0	28	0	0	244	39	0	585	2191
05:15 PM	05:30 PM	0	0	0	0	53	182	0	0	80	0	48	0	0	233	41	0	637	2348
05:30 PM	05:45 PM	0	0	0	0	40	123	0	0	65	0	48	0	0	260	41	0	577	2373
05:45 PM	06:00 PM	0	0	0	0	47	131	0	0	49	0	33	0	0	203	26	0	489	2288



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	155	618	0	273	0	168	0	996	163
0			773			441			1159		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		4:45:00 PM			5:45 PM	Peak Vol:		2373	PHF:		0.93

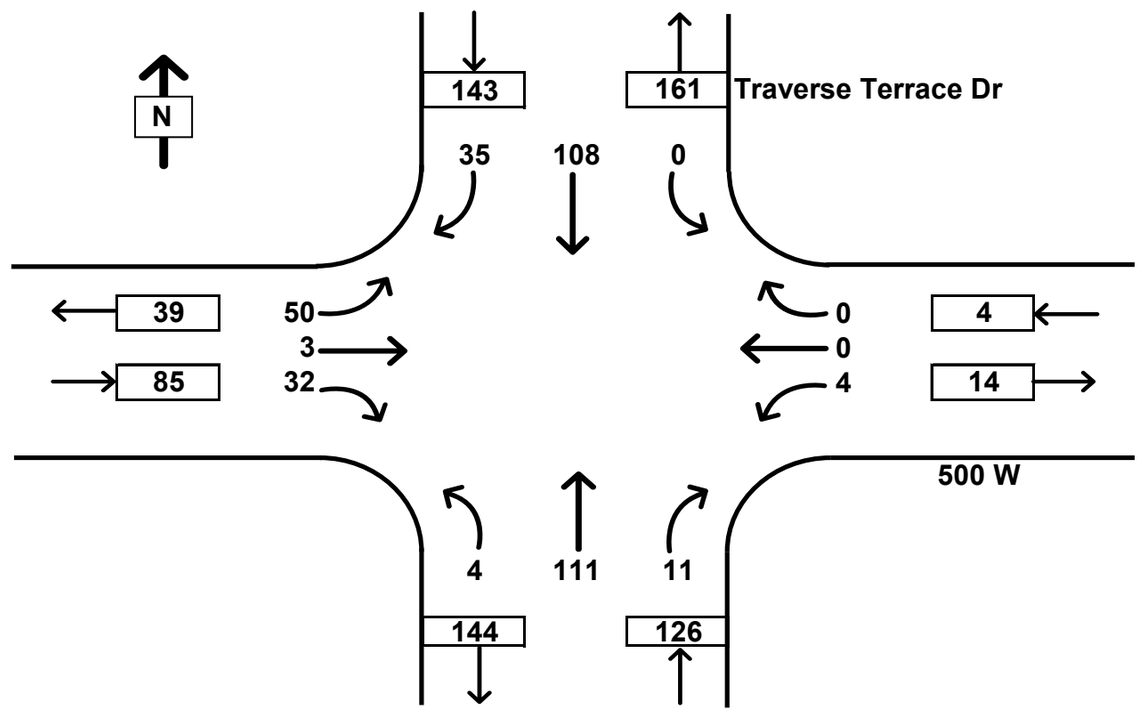
OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

TRAFFIC COUNT SUMMARY

City: **Micron**
N-S Street: **Traverse Terrace Dr**
E-W Street: **500 W**
Date: **Thursday, May 4, 2021**
Begin Time: **07:00 AM**
Interval Length: **15 min**

HORROCKS ENGINEERS

Time Interval		SB				WB				NB				EB				Total	Hourly
		Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	All Moves	Totals
07:00 AM	07:15 AM	0	7	2	0	0	0	0	0	1	15	8	0	1	1	2	0	37	
07:15 AM	07:30 AM	0	6	1	0	0	0	0	0	0	18	4	0	2	0	8	0	39	
07:30 AM	07:45 AM	0	21	8	0	2	0	0	0	3	21	2	0	12	3	12	0	84	
07:45 AM	08:00 AM	0	57	20	0	1	0	0	0	0	58	3	0	29	0	5	0	173	333
08:00 AM	08:15 AM	0	24	6	0	1	0	0	0	1	14	2	0	7	0	7	0	62	358
08:15 AM	08:30 AM	0	5	3	0	2	0	0	0	1	7	1	0	3	0	3	0	25	344
08:30 AM	08:45 AM	0	10	1	0	0	0	0	0	0	13	0	0	1	0	5	0	30	290
08:45 AM	09:00 AM	0	34	12	0	1	0	0	0	2	29	2	0	19	0	5	0	104	221



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	108	35	4	0	0	4	111	11	50	3	32
143			4			126			85		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		7:15:00 AM			8:15 AM	Peak Vol:		358	PHF:		0.52

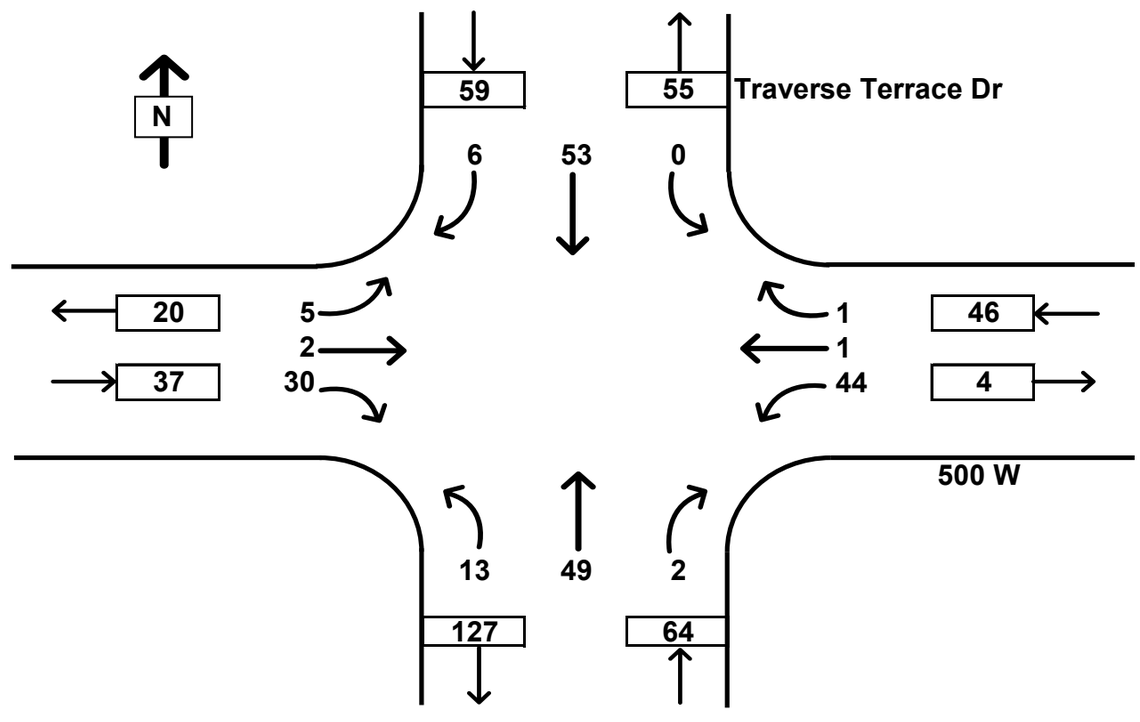
OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

TRAFFIC COUNT SUMMARY

City: **Micron**
N-S Street: **Traverse Terrace Dr**
E-W Street: **500 W**
Date: **Thursday, May 4, 2021**
Begin Time: **04:00 PM**
Interval Length: **15 min**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
04:00 PM	04:15 PM	0	15	3	0	3	0	0	0	2	8	0	0	0	0	2	0	33	
04:15 PM	04:30 PM	0	7	1	0	3	0	0	0	5	3	0	0	4	0	2	0	25	
04:30 PM	04:45 PM	0	15	1	0	1	0	0	0	3	12	0	0	1	0	6	0	39	
04:45 PM	05:00 PM	0	14	1	0	10	0	1	0	5	15	0	0	1	0	10	0	57	154
05:00 PM	05:15 PM	0	15	1	0	34	0	0	0	1	11	1	0	3	0	6	0	72	193
05:15 PM	05:30 PM	0	11	1	0	0	1	0	0	4	11	0	0	1	1	6	0	36	204
05:30 PM	05:45 PM	0	13	3	0	0	0	0	0	3	12	1	0	0	1	8	0	41	206
05:45 PM	06:00 PM	0	12	2	0	2	0	0	0	7	5	0	0	0	0	7	0	35	184



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	53	6	44	1	1	13	49	2	5	2	30
59			46			64			37		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		4:45:00 PM			5:45 PM	Peak Vol:		206	PHF:		0.72

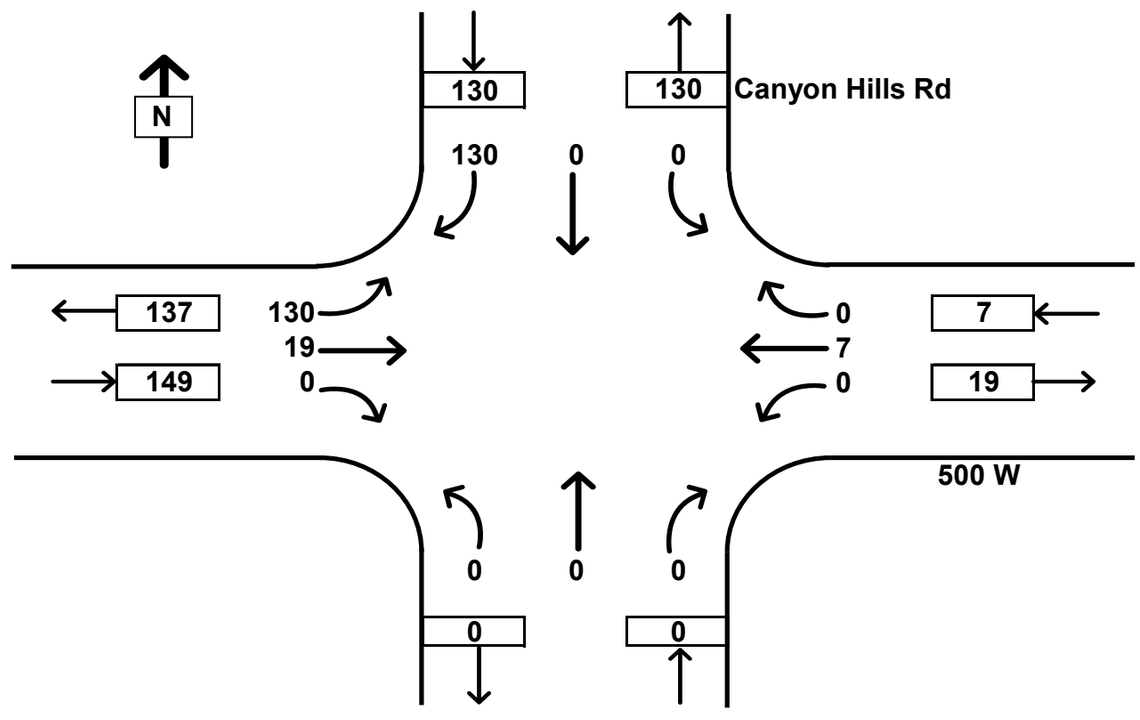
OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

TRAFFIC COUNT SUMMARY

City: **Micron**
N-S Street: **Canyon Hills Rd**
E-W Street: **500 W**
Date: **Wednesday, May 12, 2021**
Begin Time: **07:00 AM**
Interval Length: **15 min**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
07:00 AM	07:15 AM	0	0	3	0	0	0	0	0					5	7	0	0	15	
07:15 AM	07:30 AM	0	0	6	0	0	0	0	0					8	10	0	0	24	
07:30 AM	07:45 AM	0	0	20	0	0	3	0	0					34	3	0	0	60	
07:45 AM	08:00 AM	0	0	71	0	0	4	0	0					73	5	0	0	153	252
08:00 AM	08:15 AM	0	0	33	0	0	0	0	0					15	1	0	0	49	286
08:15 AM	08:30 AM	0	0	7	0	0	0	0	0					4	6	0	0	17	279
08:30 AM	08:45 AM	0	0	4	0	0	0	0	0					5	2	0	0	11	230
08:45 AM	09:00 AM	4	0	23	0	0	5	4	0					21	13	0	0	70	147
		1	0	0	0	1	0	0	0					0	0	1	0		



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	130	0	7	0	0	0	0	130	19	0
130			7			0			149		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		7:15:00 AM			8:15 AM	Peak Vol:		286	PHF:		0.47

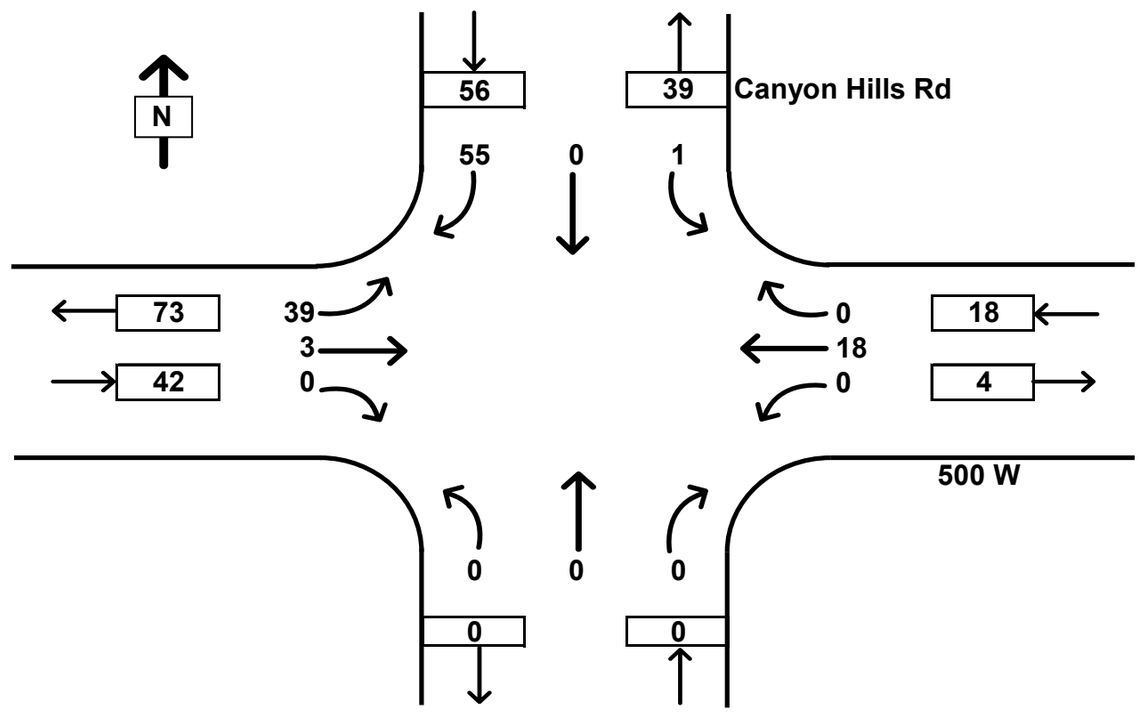
OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

TRAFFIC COUNT SUMMARY

City: **Micron**
N-S Street: **Canyon Hills Rd**
E-W Street: **500 W**
Date: **Wednesday, May 12, 2021**
Begin Time: **04:00 PM**
Interval Length: **15 min**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
04:00 PM	04:15 PM	0	0	20	0	0	6	0						7	0	0	0	33	
04:15 PM	04:30 PM	0	0	8	0	0	7	0						10	0	0	0	25	
04:30 PM	04:45 PM	0	0	13	0	0	2	0						11	2	0	0	28	
04:45 PM	05:00 PM	1	0	14	0	0	3	0						11	1	0	0	30	116
05:00 PM	05:15 PM	0	0	8	0	0	2	0						20	0	0	0	30	113
05:15 PM	05:30 PM	0	0	3	0	0	1	0						10	0	0	0	14	102
05:30 PM	05:45 PM	0	0	13	0	0	0	0						6	0	0	0	19	93
05:45 PM	06:00 PM	0	0	9	0	0	2	0						9	1	0	0	21	84
		0	0	0	0	0	0	0											



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	0	55	0	18	0	0	0	0	39	3	0
56			18			0			42		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		4:00:00 PM		5:00 PM		Peak Vol:		116	PHF:		0.88

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

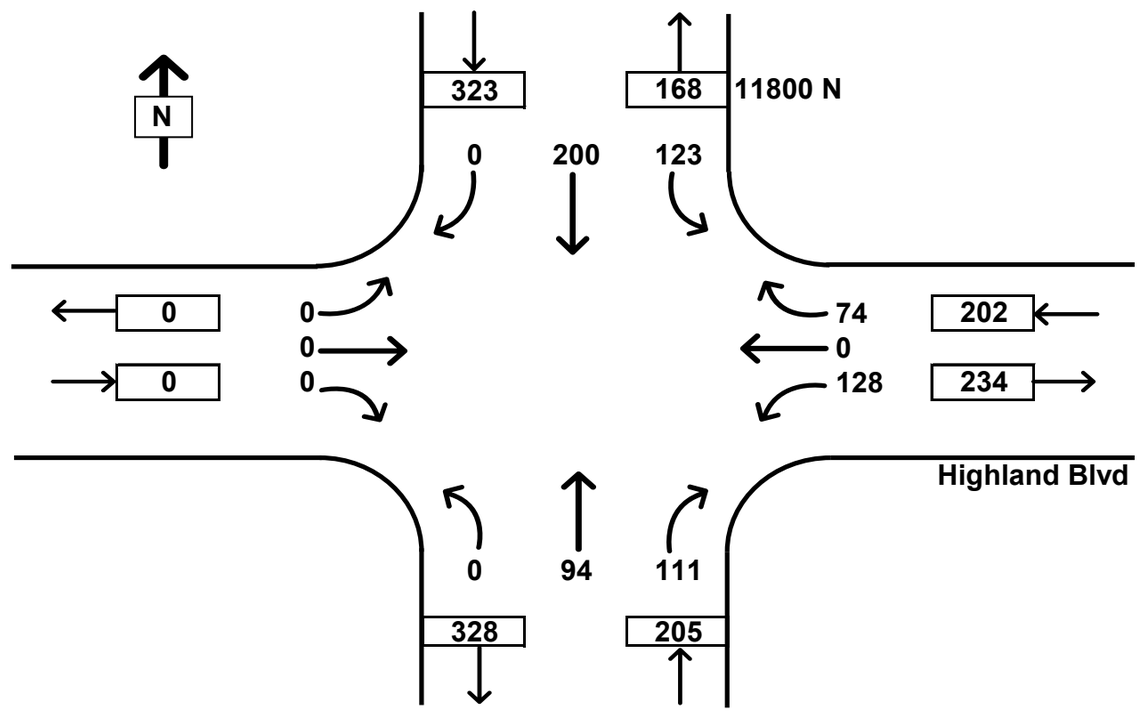
TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **11800 N**
Date: **Tuesday, May 4, 2021**
Begin Time: **07:00 AM**
Interval Length: **15 min**

E-W Street: **Highland Blvd**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
07:00 AM	07:15 AM	8	36	0		27	0	6		0	11	10		0	0	0		98	
07:15 AM	07:30 AM	16	53	0		27	0	7		0	15	28		0	0	0		146	
07:30 AM	07:45 AM	30	56	0		33	0	5		0	23	26		0	0	0		173	
07:45 AM	08:00 AM	45	57	0		32	0	25		0	24	40		0	0	0		223	640
08:00 AM	08:15 AM	25	36	0		38	0	20		0	22	23		0	0	0		164	706
08:15 AM	08:30 AM	23	51	0		25	0	24		0	25	22		0	0	0		170	730
08:30 AM	08:45 AM	15	45	0		29	0	11		0	22	18		0	0	0		140	697
08:45 AM	09:00 AM	25	48	0		37	0	9		0	34	31		0	0	0		184	658



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
123	200	0	128	0	74	0	94	111	0	0	0
323			202			205			0		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		7:30:00 AM			8:30 AM	Peak Vol:		730	PHF:		0.82

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

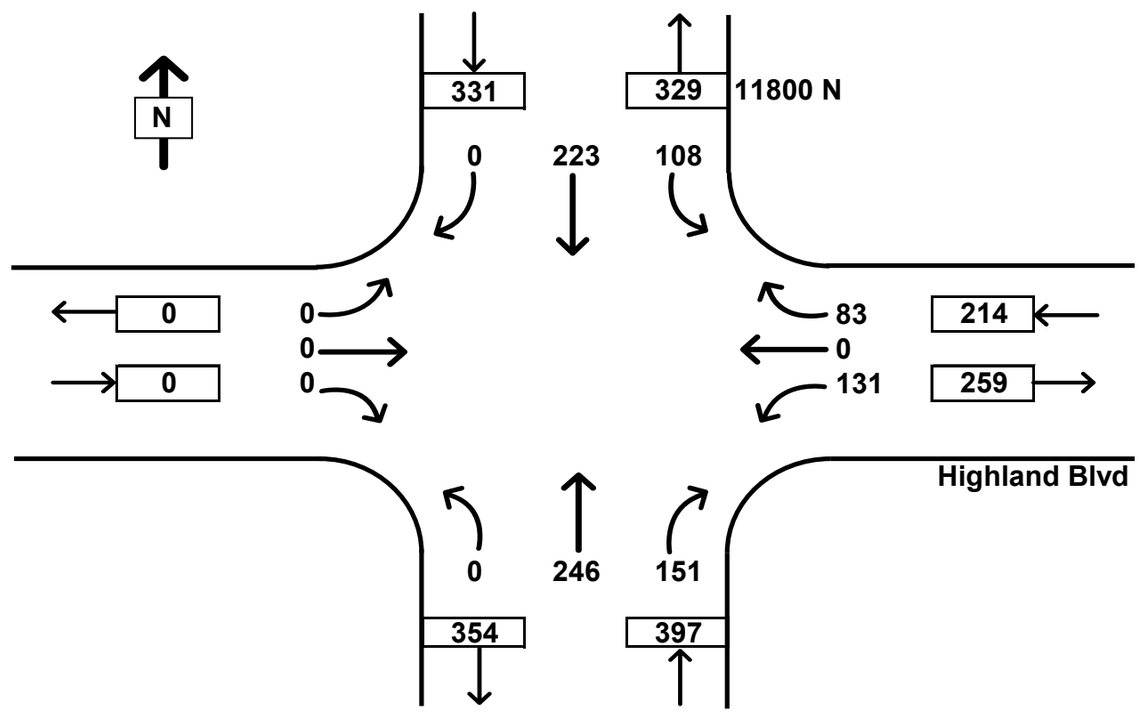
TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **11800 N**
Date: **Tuesday, May 4, 2021**
Begin Time: **04:00 PM**
Interval Length: **15 min**

E-W Street: **Highland Blvd**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
04:00 PM	04:15 PM	18	46	0		31	0	15		0	51	29		0	0	0		190	
04:15 PM	04:30 PM	23	43	0		33	0	17		0	57	23		0	0	0		196	
04:30 PM	04:45 PM	20	43	0		43	0	15		0	51	33		0	0	0		205	
04:45 PM	05:00 PM	28	65	0		23	0	21		0	49	27		0	0	0		213	804
05:00 PM	05:15 PM	25	50	0		33	0	23		0	64	35		0	0	0		230	844
05:15 PM	05:30 PM	28	53	0		35	0	27		0	68	37		0	0	0		248	896
05:30 PM	05:45 PM	22	62	0		27	0	21		0	59	44		0	0	0		235	926
05:45 PM	06:00 PM	33	58	0		36	0	12		0	55	35		0	0	0		229	942



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
108	223	0	131	0	83	0	246	151	0	0	0
331			214			397			0		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		5:00:00 PM			6:00 PM	Peak Vol:		942	PHF:		0.95

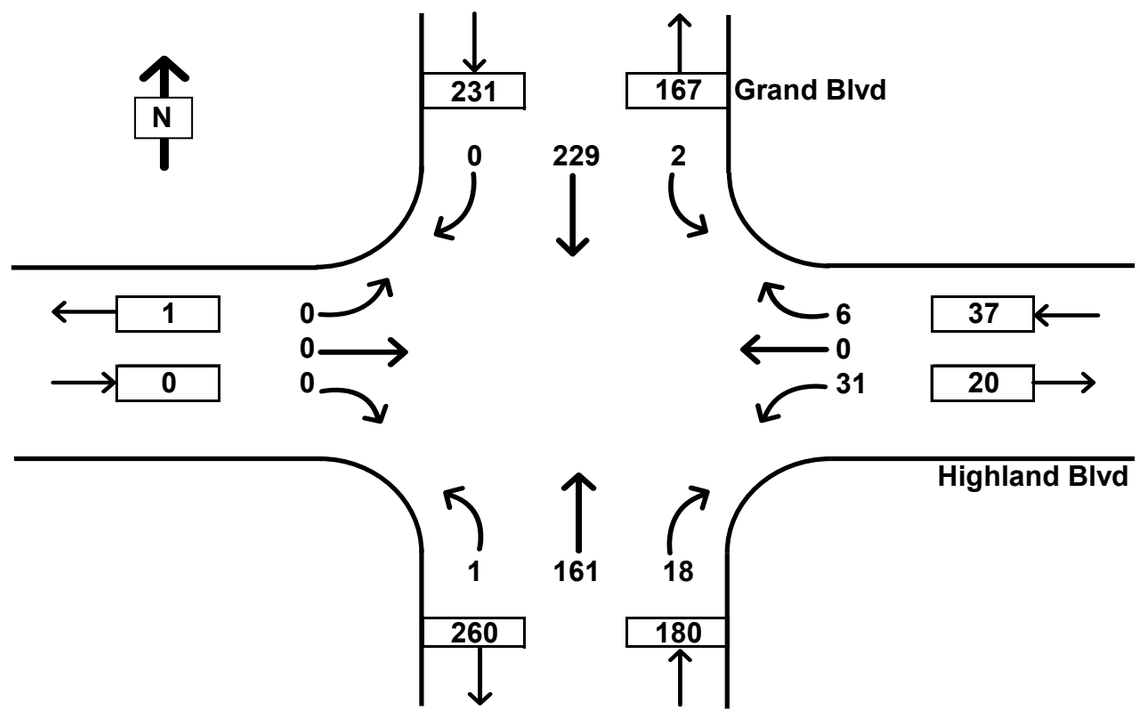
OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **Grand Blvd**
E-W Street: **Highland Blvd**
Date: **Tuesday, May 4, 2021**
Begin Time: **07:00 AM**
Interval Length: **15 min**

HORROCKS ENGINEERS

Time Interval		SB				WB				NB				EB				Total	Hourly
		Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	All Moves	Totals
07:00 AM	07:15 AM	0	19	0	0	7	0	1	2	0	11	5	0	0	0	0	0	43	
07:15 AM	07:30 AM	0	31	0	0	6	0	0	0	0	25	2	0	0	0	0	0	64	
07:30 AM	07:45 AM	1	56	0	0	5	0	0	0	0	24	4	0	0	0	0	0	90	
07:45 AM	08:00 AM	0	82	0	0	6	0	1	2	0	55	5	0	0	0	0	9	149	346
08:00 AM	08:15 AM	0	56	0	0	9	0	2	0	1	41	5	0	0	0	0	0	114	417
08:15 AM	08:30 AM	1	41	0	0	12	0	3	0	0	27	5	0	0	0	0	0	89	442
08:30 AM	08:45 AM	1	50	0	0	4	0	0	1	0	38	3	0	0	0	0	0	96	448
08:45 AM	09:00 AM	3	63	0	0	16	0	3	1	0	34	7	0	0	0	0	0	126	425



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2	229	0	31	0	6	1	161	18	0	0	0
	231			37			180			0	
Trucks:		0%	Trucks:		8%	Trucks:		0%	Trucks:		0%
Peak Hour:		7:45:00 AM			8:45 AM	Peak Vol:		448	PHF:		0.75

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

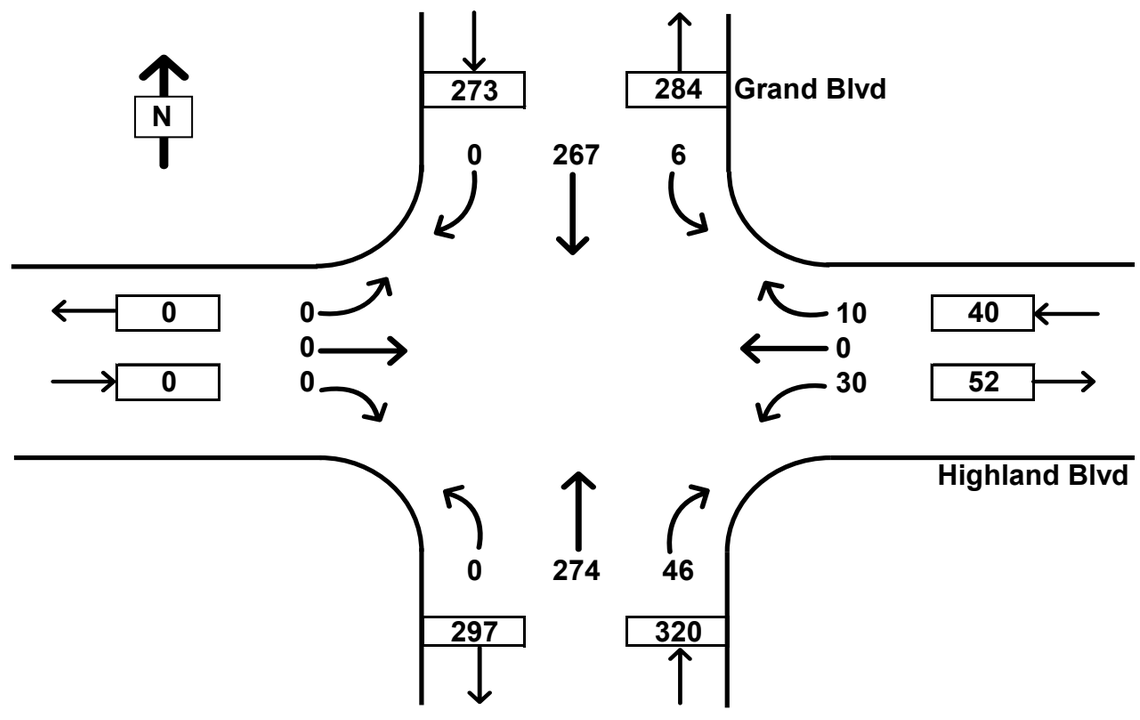
TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **Grand Blvd**
Date: **Tuesday, May 4, 2021**
Begin Time: **04:00 PM**
Interval Length: **15 min**

E-W Street: **Highland Blvd**

HORROCKS ENGINEERS

Time Interval		SB Left	SB Thru	SB Right	SB Trucks	WB Left	WB Thru	WB Right	WB Trucks	NB Left	NB Thru	NB Right	NB Trucks	EB Left	EB Thru	EB Right	EB Trucks	Total All Moves	Hourly Totals
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
04:00 PM	04:15 PM	2	52	0	0	10	0	1	0	0	54	15	0	0	2	0	0	136	
04:15 PM	04:30 PM	2	62	0	0	12	0	1	0	0	61	15	0	0	0	0	0	153	
04:30 PM	04:45 PM	3	47	0	0	7	0	1	0	0	59	7	0	0	0	0	0	124	
04:45 PM	05:00 PM	1	66	0	0	8	0	2	0	0	56	8	0	0	0	0	0	141	554
05:00 PM	05:15 PM	0	58	0	0	9	0	3	0	0	67	11	0	0	0	0	0	148	566
05:15 PM	05:30 PM	5	73	0	0	7	0	2	0	0	71	10	0	0	0	0	0	168	581
05:30 PM	05:45 PM	0	59	0	0	12	0	2	0	0	78	11	0	0	0	0	0	162	619
05:45 PM	06:00 PM	1	77	0	0	2	0	3	0	0	58	14	0	0	0	0	0	155	633



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
6	267	0	30	0	10	0	274	46	0	0	0
273			40			320			0		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		5:00:00 PM			6:00 PM	Peak Vol:		633	PHF:		0.94

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

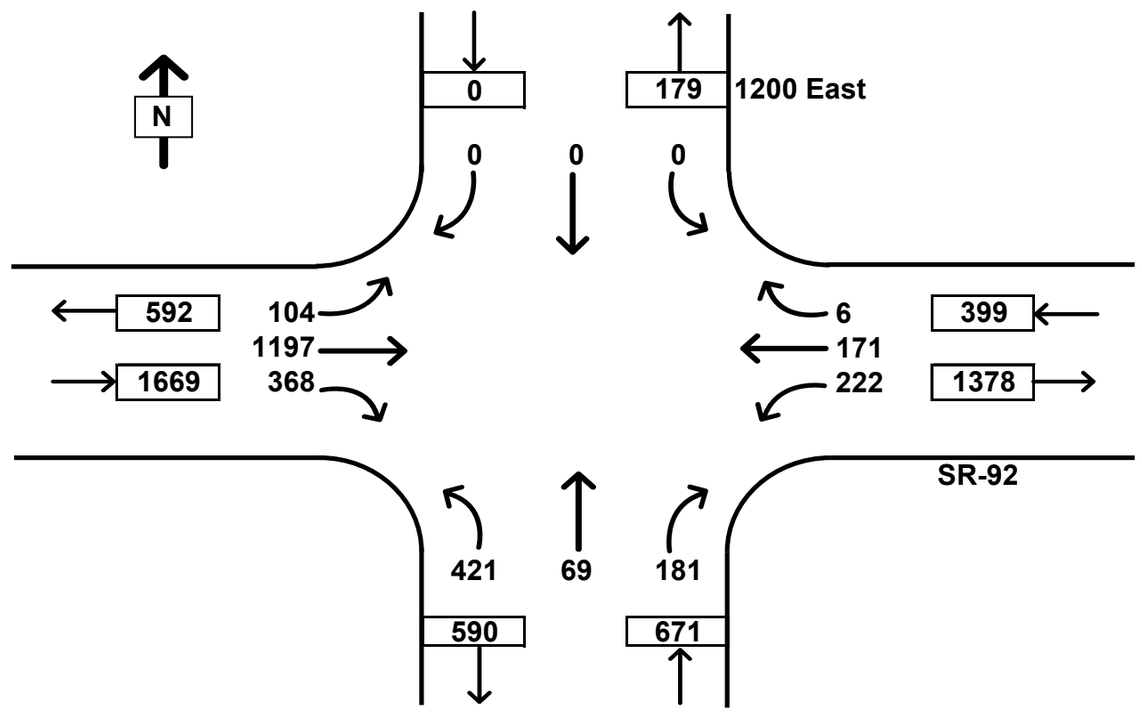
TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **1200 East**
Date: **Tuesday, May 4, 2021**
Begin Time: **07:00 AM**
Interval Length: **15 min**

E-W Street: **SR-92**

HORROCKS ENGINEERS

Time Interval		SB				WB				NB				EB				Total	Hourly
		Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	All Moves	Totals
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
07:00 AM	07:15 AM																	0	
07:15 AM	07:30 AM																	0	
07:30 AM	07:45 AM																	0	
07:45 AM	08:00 AM																	0	0
08:00 AM	08:15 AM																	0	0
08:15 AM	08:30 AM																	0	0
08:30 AM	08:45 AM																	0	0
08:45 AM	09:00 AM																	0	0



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	222	171	6	421	69	181	104	1197	368
0			399			671			1669		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		12:00:00 AM			1:00 AM	Peak Vol:		2739	PHF:		#DIV/0!

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

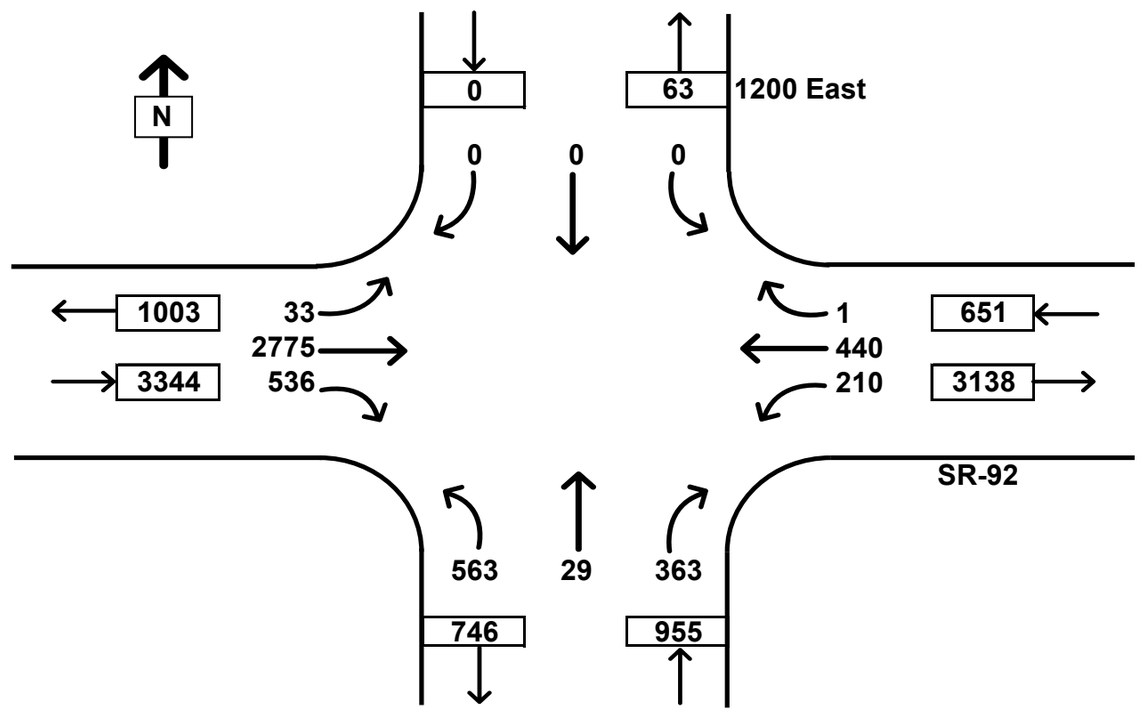
TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **1200 East**
Date: **Tuesday, May 4, 2021**
Begin Time: **04:00 PM**
Interval Length: **15 min**

E-W Street: **SR-92**

HORROCKS ENGINEERS

Time Interval		SB				WB				NB				EB				Total	Hourly
		Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	All Moves	Totals
04:00 PM	04:15 PM																	0	
04:15 PM	04:30 PM																	0	
04:30 PM	04:45 PM																	0	
04:45 PM	05:00 PM																	0	0
05:00 PM	05:15 PM																	0	0
05:15 PM	05:30 PM																	0	0
05:30 PM	05:45 PM																	0	0
05:45 PM	06:00 PM																	0	0



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	210	440	1	563	29	363	33	2775	536
0			651			955			3344		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		12:00:00 AM		1:00 AM		Peak Vol:		4950	PHF:		#DIV/0!

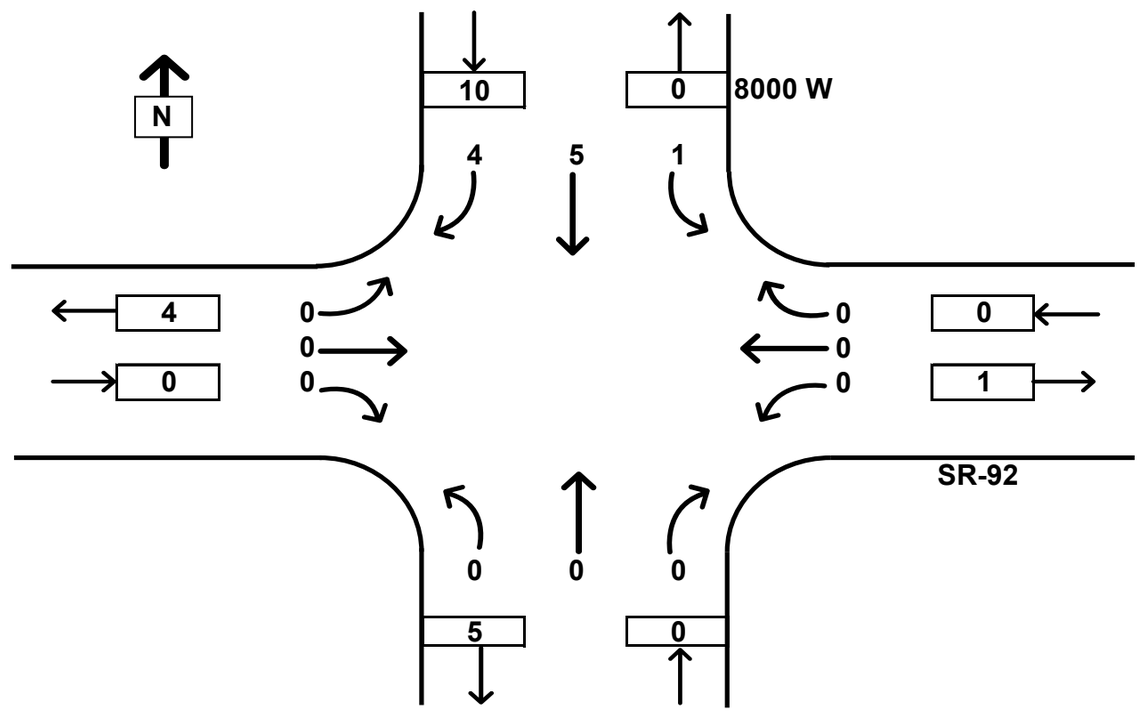
OPTIONAL	
Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **8000 W**
E-W Street: **SR-92**
Date: **Tuesday, May 4, 2021**
Begin Time: **07:00 AM**
Interval Length: **15 min**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
07:00 AM	07:15 AM																	0	
07:15 AM	07:30 AM																	0	
07:30 AM	07:45 AM																	0	
07:45 AM	08:00 AM																	0	0
08:00 AM	08:15 AM	0	2	1														3	3
08:15 AM	08:30 AM	1	1	0														2	5
08:30 AM	08:45 AM	0	1	1														2	7
08:45 AM	09:00 AM	0	1	2														3	10



ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	5	4	0	0	0	0	0	0	0	0	0
10			0			0			0		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		8:00:00 AM			9:00 AM	Peak Vol:		10	PHF:		0.83

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

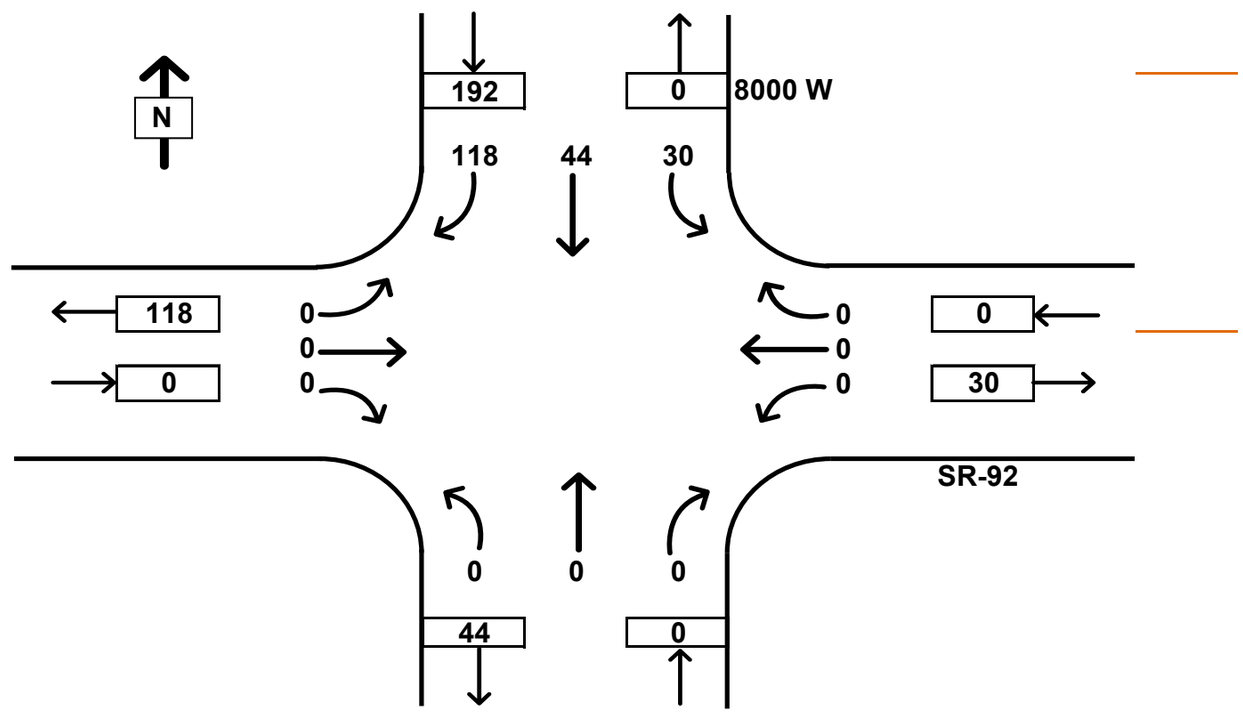
TRAFFIC COUNT SUMMARY

City: **Lehi**
N-S Street: **8000 W**
Date: **Tuesday, May 4, 2021**
Begin Time: **04:00 PM**
Interval Length: **15 min**

E-W Street: **SR-92**

HORROCKS ENGINEERS

Time Interval		SB Left 1	SB Thru 2	SB Right 3	SB Trucks 4	WB Left 5	WB Thru 6	WB Right 7	WB Trucks 8	NB Left 9	NB Thru 10	NB Right 11	NB Trucks 12	EB Left 13	EB Thru 14	EB Right 15	EB Trucks 16	Total All Moves	Hourly Totals
04:00 PM	04:15 PM	4	6	33														43	
04:15 PM	04:30 PM	15	12	29														56	
04:30 PM	04:45 PM	7	17	34														58	
04:45 PM	05:00 PM	4	9	22														35	192
05:00 PM	05:15 PM																	0	149
05:15 PM	05:30 PM																	0	93
05:30 PM	05:45 PM																	0	35
05:45 PM	06:00 PM																	0	0

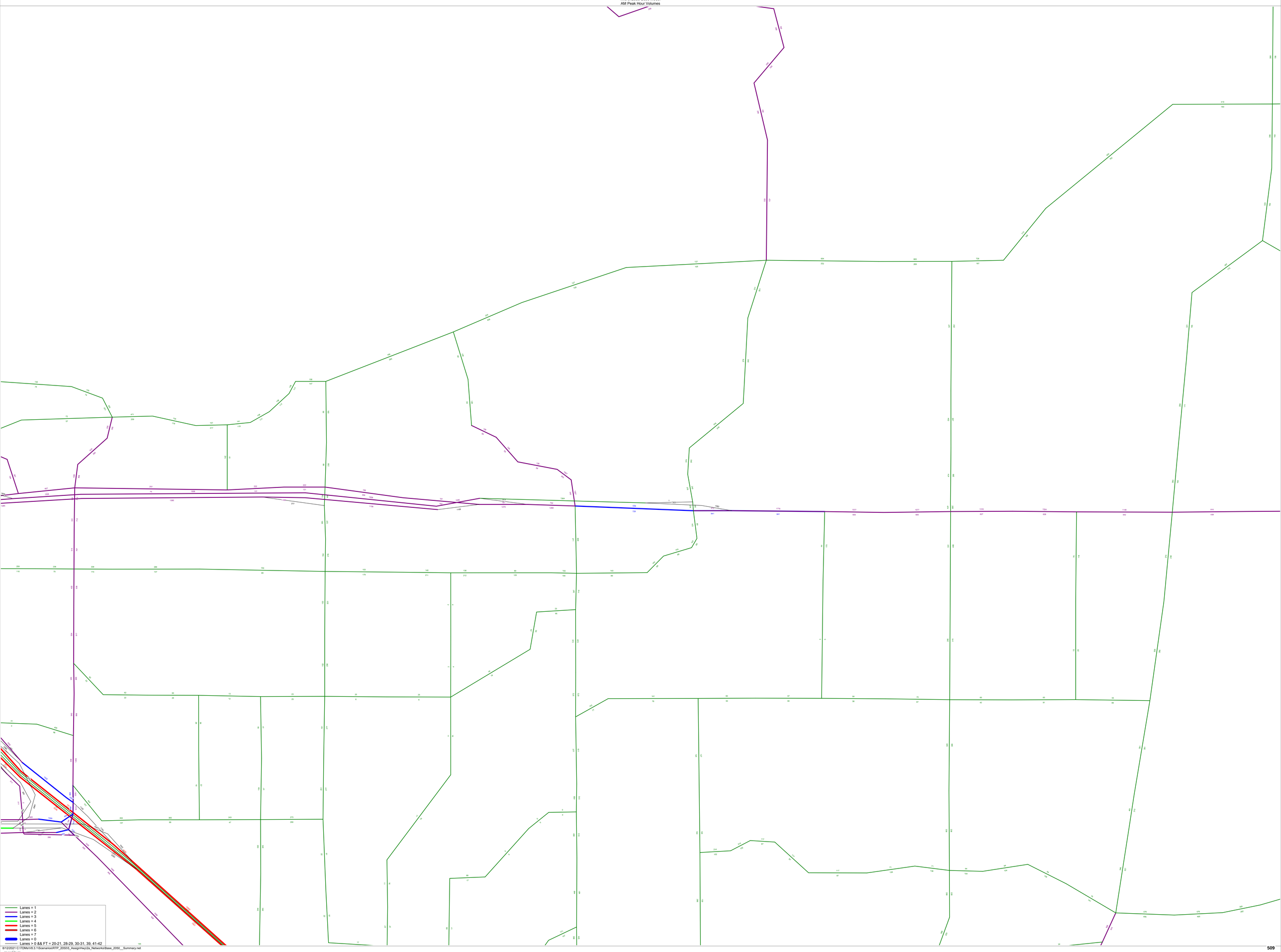


ADJUSTED PEAK HOUR TRAFFIC VOLUMES											
Southbound			Westbound			Northbound			Eastbound		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
30	44	118	0	0	0	0	0	0	0	0	0
192			0			0			0		
Trucks:		0%	Trucks:		0%	Trucks:		0%	Trucks:		0%
Peak Hour:		4:00:00 PM		5:00 PM		Peak Vol:		192	PHF:		0.83

OPTIONAL Adjustment Factor	
Monthly:	1.00
Daily:	1.00
Interval:	1.00
Count:	1.00
Total:	1

TDM OUTPUTS

Micron2050 Base Model
AM Peak Hour Volumes



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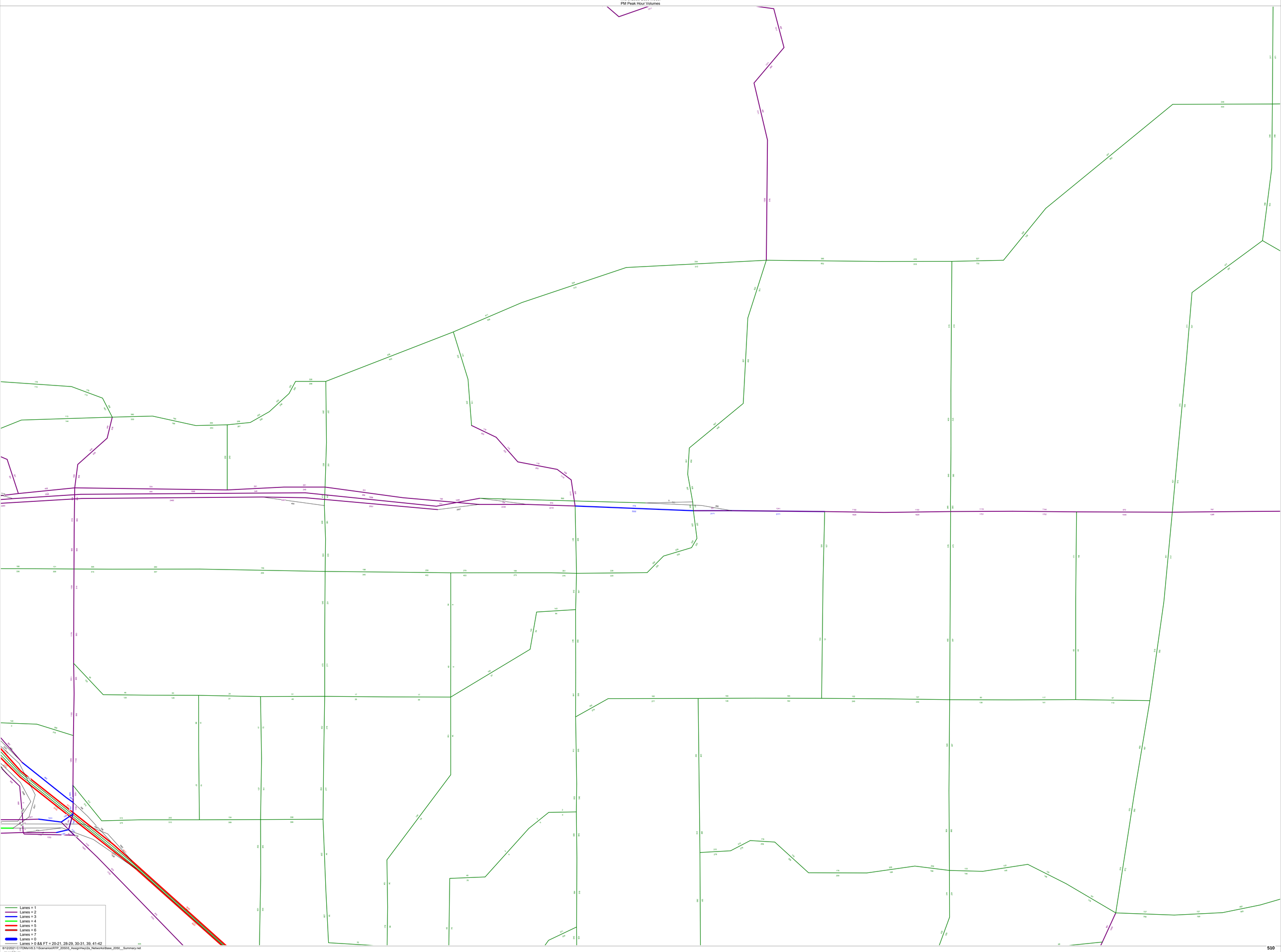
Micron2050 Base Model
PM Peak Hour Volumes



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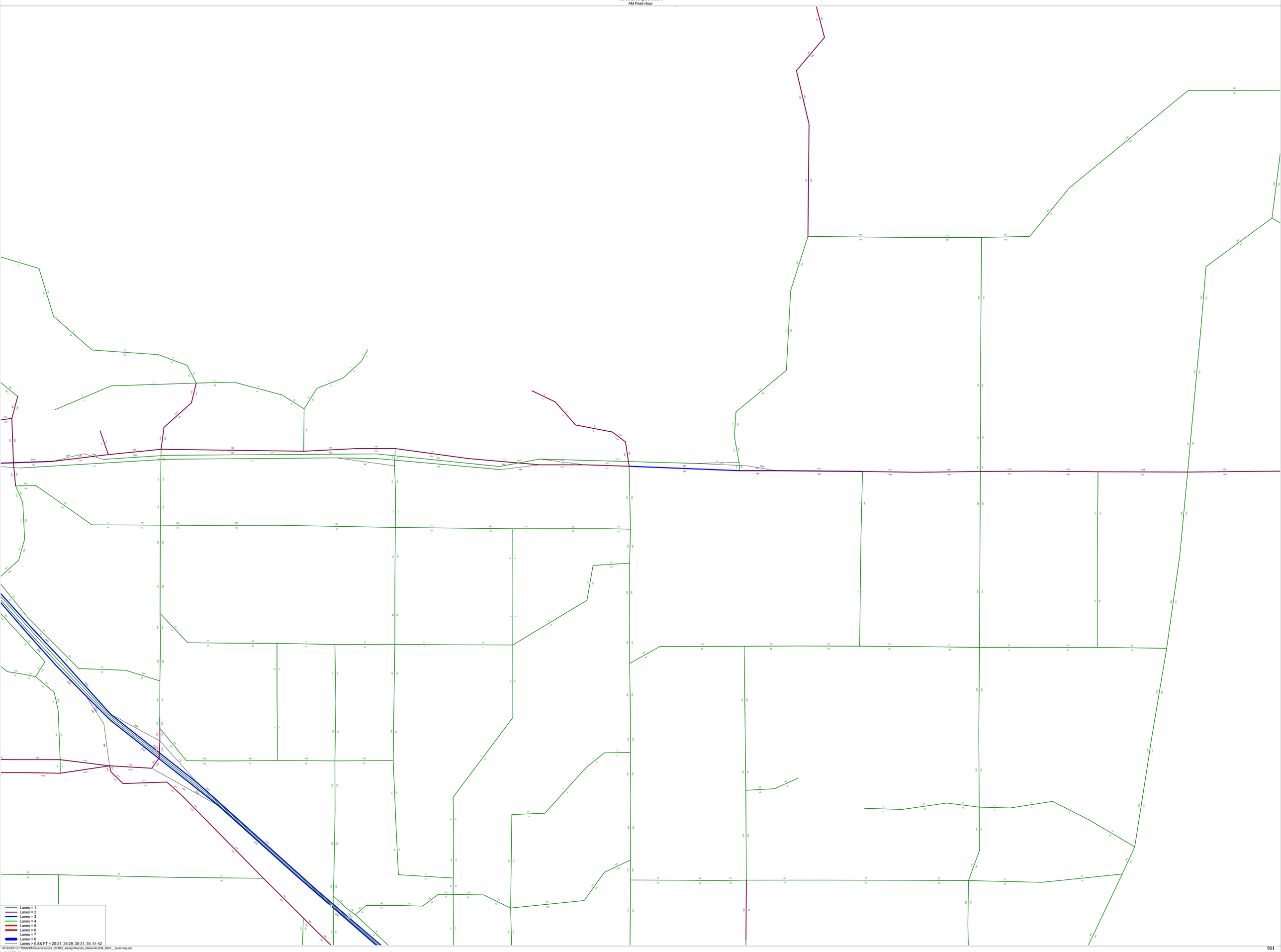
Micron Existing Conditions
AM Peak Hour



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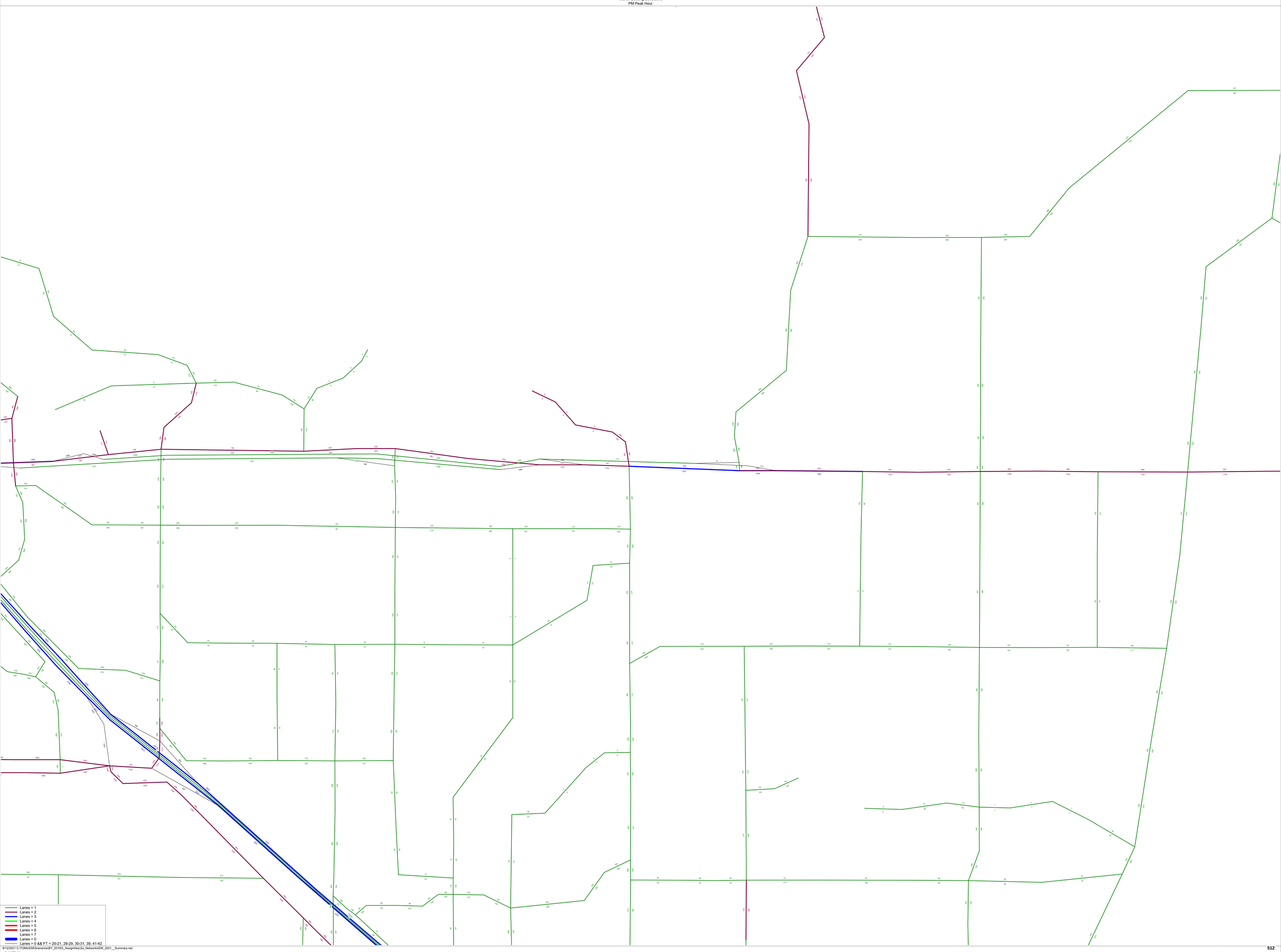
Micron Existing Conditions
PM Peak Hour



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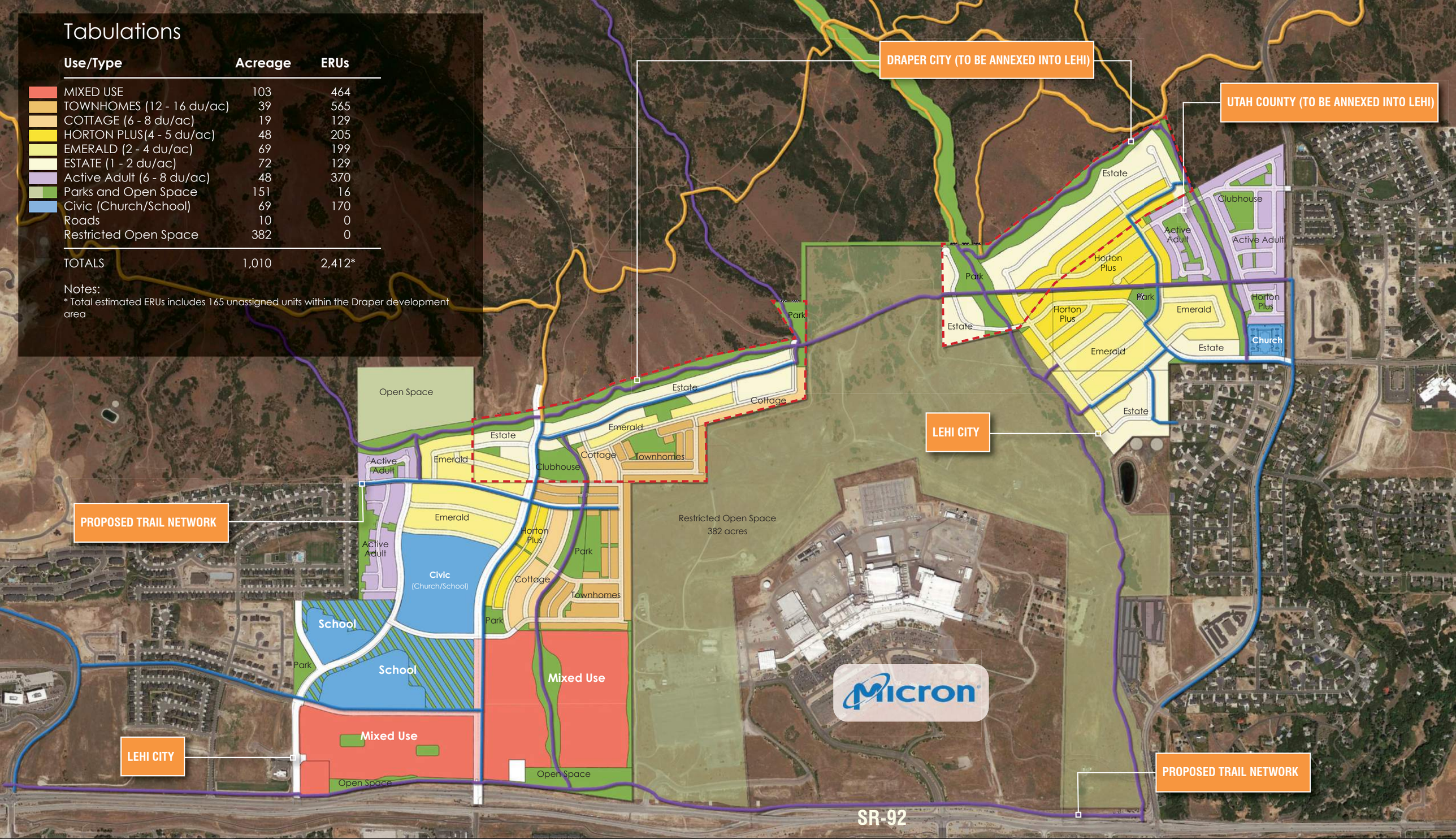
SITE LAYOUT

Tabulations

Use/Type	Acreage	ERUs
MIXED USE	103	464
TOWNHOMES (12 - 16 du/ac)	39	565
COTTAGE (6 - 8 du/ac)	19	129
HORTON PLUS(4 - 5 du/ac)	48	205
EMERALD (2 - 4 du/ac)	69	199
ESTATE (1 - 2 du/ac)	72	129
Active Adult (6 - 8 du/ac)	48	370
Parks and Open Space	151	16
Civic (Church/School)	69	170
Roads	10	0
Restricted Open Space	382	0
TOTALS	1,010	2,412*

Notes:
* Total estimated ERUs includes 165 unassigned units within the Draper development area



MICRON
Concept Plan
e 21, 2021

North

D·R·HORTON America's Builder

TRIP GENERATION

Micron TIS -Full Build without Annexation											
Zone 1	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
	Multifamily Housing (Mid-Rise) (ITE 221)		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	232	1,263	631	631	84	22	62	102	62	40
	Shopping Center (ITE 820)		**37.75**	50%	50%	**0.94**	62%	38%	**3.81**	48%	52%
	1000 Sq. Ft. GFA	50	3,752	1,876	1,876	47	29	18	325	156	169
	Total Internal Capture						5	3		19	45
	Total New Trips		**5,015**	**2,507**	**2,507**	**131**	**46**	**77**	**427**	**199**	**164**
Zone 2	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
	Middle School/Junior High School (ITE 522)		**20.17**	50%	50%	**6.73**	55%	45%	**3.33**	45%	55%
	1000 Sq. Ft. GFA	117	2,360	1,180	1,180	787	433	354	390	175	214
	Total Internal Capture						4	4		11	6
	Total New Trips		**2,360**	**1,180**	**1,180**	**787**	**429**	**351**	**390**	**165**	**208**
Zone 3	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
	Single-Family Detached Housing (ITE 210)		**Ln(T)=0.92Ln(x)+2.71**	50%	50%	**T=0.71(x)+4.80**	25%	75%	**Ln(T)=0.96Ln(x)+0.20**	63%	37%
	Dwelling Units	67	717	359	359	52	13	39	69	43	26
	Multifamily Housing (Mid-Rise) (ITE 221)		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	111	603	302	302	40	10	30	49	30	19
	Elementary School (ITE 520)		**19.52**	50%	50%	**6.97**	55%	45%	**1.37**	45%	55%
	1000 Sq. Ft. GFA	46	898	449	449	321	176	144	63	28	35
	Church (ITE 560)		**6.95**	50%	50%	**T=0.36(x)-0.74**	60%	40%	**0.49**	45%	55%
	1000 Sq. Ft. GFA	290	2,016	1,008	1,008	104	62	41	142	64	78
	Total Internal Capture						2	2		6	2
	Total New Trips		**4,234**	**2,117**	**2,117**	**516**	**260**	**252**	**323**	**159**	**155**
Zone 4	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
	Single-Family Detached Housing (ITE 210)		**Ln(T)=0.92Ln(x)+2.71**	50%	50%	**T=0.71(x)+4.80**	25%	75%	**Ln(T)=0.96Ln(x)+0.20**	63%	37%
	Dwelling Units	125	1,277	638	638	94	23	70	126	79	47
	Multifamily Housing (Mid-Rise) (ITE 221)		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	378	2,058	1,029	1,029	136	35	101	166	101	65
	Public Park (ITE 411)		**0.78**	50%	50%	**0.02**	59%	41%	**0.11**	55%	45%
	Acres	4	91	45	46	0	0	0	0	0	0
	Total Internal Capture						1	2		11	3
	Total New Trips		**3,426**	**1,713**	**1,713**	**230**	**58**	**169**	**293**	**170**	**108**
Zone 5	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
	Multifamily Housing (Mid-Rise) (ITE 221)		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	232	1,263	631	631	84	22	62	102	62	40
	Shopping Center (ITE 820)		**37.75**	50%	50%	**0.94**	62%	38%	**3.81**	48%	52%
	1000 Sq. Ft. GFA	50	3,752	1,876	1,876	47	29	18	325	156	169
	Total Internal Capture						5	3		19	45
	Total New Trips		**5,015**	**2,507**	**2,507**	**131**	**46**	**77**	**427**	**199**	**164**
Zone 6	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
	Single-Family Detached Housing (ITE 210)		**Ln(T)=0.92Ln(x)+2.71**	50%	50%	**T=0.71(x)+4.80**	25%	75%	**Ln(T)=0.96Ln(x)+0.20**	63%	37%
	Dwelling Units	196	1,927	963	963	144	36	108	193	122	72
	Church (ITE 560)		**6.95**	50%	50%	**T=0.36(x)-0.74**	60%	40%	**0.49**	45%	55%
	1000 Sq. Ft. GFA	97	674	337	337	34	21	14	48	21	26
	Public Park (ITE 411)		**0.78**	50%	50%	**0.02**	59%	41%	**0.11**	55%	45%
	Acres	4	91	45	46	0	0	0	0	0	0
	Total Internal Capture						0	1		7	2
	Total New Trips		**2,692**	**1,346**	**1,346**	**178**	**56**	**120**	**241**	**136**	**96**
Zone 7	Variable	Quantity	Daily			**4**			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
	Multifamily Housing (Mid-Rise) (ITE 221)		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	259	1,410	705	705	93	24	69	114	70	44
	Single-Family Detached Housing (ITE 210)		**Ln(T)=0.92Ln(x)+2.71**	50%	50%	**T=0.71(x)+4.80**	25%	75%	**Ln(T)=0.96Ln(x)+0.20**	63%	37%
	Dwelling Units	17	200	100	100	17	4	12	18	11	7
	Public Park (ITE 411)		**0.78**	50%	50%	**0.02**	59%	41%	**0.11**	55%	45%
	Acres	5	92	46	46	0	0	0	1	0	0
	Total Internal Capture						0	1		5	2
	Total New Trips		**1,702**	**851**	**851**	**110**	**28**	**81**	**133**	**76**	**50**
Total Development Trips			**24,443**	**12,221**	**12,222**	**2,082**	**923**	**1,126**	**2,233**	**1,105**	**944**

Full Build without Annexation plus 337 Estate Units

	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 1	**Multifamily Housing (Mid-Rise) (ITE 221)**		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	232	1,263	631	631	84	22	62	102	62	40
	Shopping Center (ITE 820)		**37.75**	50%	50%	**0.94**	62%	38%	**3.81**	48%	52%
	1000 Sq. Ft. GFA	50	3,752	1,876	1,876	47	29	18	325	156	169
	Total Internal Capture						5	3		19	45
	Total New Trips		**5,015**	**2,507**	**2,507**	**131**	**46**	**77**	**427**	**200**	**164**
	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 2	**Middle School/Junior High School (ITE 522)**		**20.17**	50%	50%	**6.73**	55%	45%	**3.33**	45%	55%
	1000 Sq. Ft. GFA	117	2,360	1,180	1,180	787	433	354	390	175	214
	Total Internal Capture						4	4		9	4
	Total New Trips		**2,360**	**1,180**	**1,180**	**787**	**429**	**351**	**390**	**167**	**210**
	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 3	**Single-Family Detached Housing (ITE 210)**		**Ln(T)=0.92Ln(x)+2.71**	50%	50%	**T=0.71(x)+4.80**	25%	75%	**Ln(T)=0.96Ln(x)+0.20**	63%	37%
	Dwelling Units	67	717	359	359	52	13	39	69	43	26
	Multifamily Housing (Mid-Rise) (ITE 221)		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	111	603	302	302	40	10	30	49	30	19
	Elementary School (ITE 520)		**19.52**	50%	50%	**6.97**	55%	45%	**1.37**	45%	55%
	1000 Sq. Ft. GFA	46	898	449	449	321	176	144	63	28	35
	Church (ITE 560)		**6.95**	50%	50%	**T=0.36(x)-0.74**	60%	40%	**0.49**	45%	55%
	1000 Sq. Ft. GFA	290	2,016	1,008	1,008	104	62	41	142	64	78
	Total Internal Capture						2	2		5	2
	Total New Trips		**4,234**	**2,117**	**2,117**	**516**	**260**	**252**	**323**	**160**	**156**
	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 4	**Single-Family Detached Housing (ITE 210)**		**Ln(T)=0.92Ln(x)+2.71**	50%	50%	**T=0.71(x)+4.80**	25%	75%	**Ln(T)=0.96Ln(x)+0.20**	63%	37%
	Dwelling Units	462	4,250	2,125	2,125	333	83	250	441	278	163
	Multifamily Housing (Mid-Rise) (ITE 221)		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	378	2,058	1,029	1,029	136	35	101	166	101	65
	Public Park (ITE 411)		**0.78**	50%	50%	**0.02**	59%	41%	**0.11**	55%	45%
	Acres	4	91	45	46	0	0	0	0	0	0
	Total Internal Capture						1	4		19	5
	Total New Trips		**6,400**	**3,200**	**3,200**	**469**	**117**	**347**	**608**	**361**	**224**
	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 5	**Multifamily Housing (Mid-Rise) (ITE 221)**		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	232	1,263	631	631	84	22	62	102	62	40
	Shopping Center (ITE 820)		**37.75**	50%	50%	**0.94**	62%	38%	**3.81**	48%	52%
	1000 Sq. Ft. GFA	50	3,752	1,876	1,876	47	29	18	325	156	169
	Total Internal Capture						5	3		19	45
	Total New Trips		**5,015**	**2,507**	**2,507**	**131**	**46**	**77**	**427**	**200**	**164**
	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 6	**Single-Family Detached Housing (ITE 210)**		**Ln(T)=0.92Ln(x)+2.71**	50%	50%	**T=0.71(x)+4.80**	25%	75%	**Ln(T)=0.96Ln(x)+0.20**	63%	37%
	Dwelling Units	196	1,927	963	963	144	36	108	193	122	72
	Church (ITE 560)		**6.95**	50%	50%	**T=0.36(x)-0.74**	60%	40%	**0.49**	45%	55%
	1000 Sq. Ft. GFA	97	674	337	337	34	21	14	48	21	26
	Public Park (ITE 411)		**0.78**	50%	50%	**0.02**	59%	41%	**0.11**	55%	45%
	Acres	4	91	45	46	0	0	0	0	0	0
	Total Internal Capture						0	1		6	1
	Total New Trips		**2,692**	**1,346**	**1,346**	**178**	**56**	**120**	**241**	**137**	**96**
	Variable	Quantity	Daily			4			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Zone 7	**Multifamily Housing (Mid-Rise) (ITE 221)**		**T=5.45(x)-1.75**	50%	50%	**0.36**	26%	74%	**0.44**	61%	39%
	Dwelling Units	259	1,410	705	705	93	24	69	114	70	44
	Single-Family Detached Housing (ITE 210)		**Ln(T)=0.92Ln(x)+2.71**	50%	50%	**T=0.71(x)+4.80**	25%	75%	**Ln(T)=0.96Ln(x)+0.20**	63%	37%
	Dwelling Units	17	200	100	100	17	4	12	18	11	7
	Public Park (ITE 411)		**0.78**	50%	50%	**0.02**	59%	41%	**0.11**	55%	45%
	Acres	5	92	46	46	0	0	0	1	0	0
	Total Internal Capture						0	1		4	1
	Total New Trips		**1,702**	**851**	**851**	**110**	**28**	**81**	**133**	**77**	**50**
Total Development Trips			**27,417**	**13,708**	**13,708**	**2,322**	**982**	**1,304**	**2,549**	**1,302**	**1,065**

SYNCHRO REPORTS

EXISTING TRAFFIC

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	6	147	19	2	300
Future Vol, veh/h	32	6	147	19	2	300
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	7	160	21	2	326

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	501	171	0	0	181	0
Stage 1	171	-	-	-	-	-
Stage 2	330	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	530	873	-	-	1394	-
Stage 1	859	-	-	-	-	-
Stage 2	728	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	529	873	-	-	1394	-
Mov Cap-2 Maneuver	529	-	-	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	727	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	564	1394	-
HCM Lane V/C Ratio	-	-	0.073	0.002	-
HCM Control Delay (s)	-	-	11.9	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	6.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	128	74	96	11	123	200
Future Vol, veh/h	128	74	96	11	123	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	139	80	104	12	134	217

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	595	110	0	0	116	0
Stage 1	110	-	-	-	-	-
Stage 2	485	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	467	943	-	-	1473	-
Stage 1	915	-	-	-	-	-
Stage 2	619	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	425	943	-	-	1473	-
Mov Cap-2 Maneuver	425	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	563	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.4	0	2.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	532	1473	-
HCM Lane V/C Ratio	-	-	0.413	0.091	-
HCM Control Delay (s)	-	-	16.4	7.7	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2	0.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	765	4	153	471	48	19	53	62	70	73	118
Future Volume (veh/h)	155	765	4	153	471	48	19	53	62	70	73	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	168	832	4	166	512	52	21	58	67	76	79	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	2180	677	710	2163	965	164	204	173	174	204	
Arrive On Green	0.07	0.43	0.43	0.24	0.61	0.61	0.11	0.11	0.11	0.11	0.11	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1320	1870	1585	1266	1870	1585
Grp Volume(v), veh/h	168	832	4	166	512	52	21	58	67	76	79	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1320	1870	1585	1266	1870	1585
Q Serve(g_s), s	4.8	11.2	0.1	0.0	6.6	1.3	1.5	2.9	3.9	5.9	3.9	0.0
Cycle Q Clear(g_c), s	4.8	11.2	0.1	0.0	6.6	1.3	5.4	2.9	3.9	8.7	3.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	236	2180	677	710	2163	965	164	204	173	174	204	
V/C Ratio(X)	0.71	0.38	0.01	0.23	0.24	0.05	0.13	0.28	0.39	0.44	0.39	
Avail Cap(c_a), veh/h	467	2180	677	710	2163	965	382	512	434	383	512	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.6	19.6	16.5	13.1	8.9	7.9	44.0	41.0	41.4	45.0	41.4	0.0
Incr Delay (d2), s/veh	1.5	0.5	0.0	0.1	0.3	0.1	0.1	0.3	0.5	0.6	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.1	0.1	1.9	2.2	0.4	0.5	1.3	1.6	1.9	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	20.1	16.5	13.2	9.2	8.0	44.1	41.2	42.0	45.6	41.9	0.0
LnGrp LOS	D	C	B	B	A	A	D	D	D	D	D	
Approach Vol, veh/h		1004			730			146			155	A
Approach Delay, s/veh		24.6			10.0			42.0			43.7	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.3	68.2		18.5	31.5	50.0		18.5
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 14	* 38		27.4	* 8.9	* 43		27.4
Max Q Clear Time (g_c+I1), s	6.8	8.6		7.4	2.0	13.2		10.7
Green Ext Time (p_c), s	0.1	1.8		0.2	0.0	3.1		0.2

Intersection Summary	
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	765	4	153	471	48	19	53	62	70	73	118
Future Volume (veh/h)	155	765	4	153	471	48	19	53	62	70	73	118
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	168	832	4	166	512	52	21	58	67	76	79	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	236	2180	677	710	2163	965	164	204	173	174	204	
HCM 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
Prop Arrive On Green	0.07	0.43	0.43	0.24	0.61	0.61	0.11	0.11	0.11	0.11	0.11	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	47.1	20.1	16.5	13.2	9.2	8.0	44.1	41.2	42.0	45.6	41.9	0.0
Ln Grp LOS	D	C	B	B	A	A	D	D	D	D	D	
Approach Vol, veh/h		1004			730			146			155	
Approach Delay, s/veh		24.6			10.0			42.0			43.7	
Approach LOS		C			B			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	6	5		8
Case No	2.0	3.0		5.0	3.0	1.3		5.0
Phs Duration (G+Y+Rc), s	13.3	68.2		18.5	50.0	31.5		18.5
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 14	* 38		27.4	* 43	* 8.9		27.4
Max Allow Headway (MAH), s	2.5	3.5		2.7	3.6	1.3		2.9
Max Q Clear (g_c+I1), s	6.8	8.6		7.4	13.2	2.0		10.7
Green Ext Time (g_e), s	0.1	1.8		0.2	3.1	0.0		0.2
Prob of Phs Call (p_c)	0.99	1.00		1.00	1.00	0.99		1.00
Prob of Max Out (p_x)	0.00	0.00		0.00	0.00	0.07		0.00

Left-Turn Movement Data								
Assigned Mvmt	1			7		5		3
Mvmt Sat Flow, veh/h	3456			1320		1781		1266

Through Movement Data								
Assigned Mvmt		2		4	6			8
Mvmt Sat Flow, veh/h		3554		1870	5106			1870

Right-Turn Movement Data								
Assigned Mvmt		12		14	16			18
Mvmt Sat Flow, veh/h		1585		1585	1585			1585

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	0	5	0	3
Lane Assignment	L (Prot)			L	L (Pr/Pm)			L

Lanes in Grp	2	0	0	1	0	1	0	1
Grp Vol (v), veh/h	168	0	0	21	0	166	0	76
Grp Sat Flow (s), veh/h/ln	1728	0	0	1320	0	1781	0	1266
Q Serve Time (g_s), s	4.8	0.0	0.0	1.5	0.0	0.0	0.0	5.9
Cycle Q Clear Time (g_c), s	4.8	0.0	0.0	5.4	0.0	0.0	0.0	8.7
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1320	0	657	0	1266
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	10.9	0.0	42.7	0.0	10.9
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	7.0	0.0	31.5	0.0	8.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	1.5	0.0	15.0	0.0	5.9
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	236	0	0	164	0	710	0	174
V/C Ratio (X)	0.71	0.00	0.00	0.13	0.00	0.23	0.00	0.44
Avail Cap (c_a), veh/h	467	0	0	382	0	710	0	383
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	45.6	0.0	0.0	44.0	0.0	13.1	0.0	45.0
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.1	0.0	0.1	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	47.1	0.0	0.0	44.1	0.0	13.2	0.0	45.6
1st-Term Q (Q1), veh/ln	1.9	0.0	0.0	0.5	0.0	1.9	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	2.0	0.0	0.0	0.5	0.0	1.9	0.0	1.9
%ile Storage Ratio (RQ%)	0.12	0.00	0.00	0.08	0.00	0.18	0.00	0.21
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	512	0	58	832	0	0	79
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	6.6	0.0	2.9	11.2	0.0	0.0	3.9
Cycle Q Clear Time (g_c), s	0.0	6.6	0.0	2.9	11.2	0.0	0.0	3.9
Lane Grp Cap (c), veh/h	0	2163	0	204	2180	0	0	204
V/C Ratio (X)	0.00	0.24	0.00	0.28	0.38	0.00	0.00	0.39
Avail Cap (c_a), veh/h	0	2163	0	512	2180	0	0	512
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.9	0.0	41.0	19.6	0.0	0.0	41.4
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.3	0.5	0.0	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.2	0.0	41.2	20.1	0.0	0.0	41.9
1st-Term Q (Q1), veh/ln	0.0	2.1	0.0	1.3	4.0	0.0	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	1.3	4.1	0.0	0.0	1.8
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.05	0.08	0.00	0.00	0.20
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	52	0	67	4	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	1.3	0.0	3.9	0.1	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.3	0.0	3.9	0.1	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	965	0	173	677	0	0	173
V/C Ratio (X)	0.00	0.05	0.00	0.39	0.01	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	965	0	434	677	0	0	434
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.9	0.0	41.4	16.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.0	0.0	42.0	16.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.4	0.0	1.5	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.4	0.0	1.6	0.1	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.25	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	693	230	123	460	289	135
Future Volume (veh/h)	693	230	123	460	289	135
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	753	250	134	500	314	147
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2189	976	199	2657	395	181
Arrive On Green	0.62	0.62	0.06	0.75	0.11	0.11
Sat Flow, veh/h	3647	1585	3456	3647	3456	1585
Grp Volume(v), veh/h	753	250	134	500	314	147
Grp Sat Flow(s),veh/h/ln	1777	1585	1728	1777	1728	1585
Q Serve(g_s), s	10.3	7.2	3.8	4.1	8.9	9.1
Cycle Q Clear(g_c), s	10.3	7.2	3.8	4.1	8.9	9.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2189	976	199	2657	395	181
V/C Ratio(X)	0.34	0.26	0.67	0.19	0.79	0.81
Avail Cap(c_a), veh/h	2189	976	574	2657	702	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.4	8.8	46.2	3.7	43.1	43.2
Incr Delay (d2), s/veh	0.4	0.6	1.5	0.2	1.4	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	2.2	1.6	1.0	3.9	7.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.8	9.4	47.7	3.9	44.5	46.5
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1003			634	461	
Approach Delay, s/veh	9.7			13.1	45.1	
Approach LOS	A			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		81.9		18.1	13.2	68.7
Change Period (Y+Rc), s		* 7.1		* 6.7	* 7.4	7.1
Max Green Setting (Gmax), s		* 66		* 20	* 17	41.9
Max Q Clear Time (g_c+I1), s		6.1		11.1	5.8	12.3
Green Ext Time (p_c), s		1.8		0.4	0.1	3.2

Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	693	230	123	460	289	135
Future Volume (veh/h)	693	230	123	460	289	135
Number	6	16	5	2	7	14
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	753	250	134	500	314	147
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence			Yes		Yes	
Cap, veh/h	2189	976	199	2657	395	181
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.62	0.62	0.06	0.75	0.11	0.11
Unsig. Movement Delay						
Ln Grp Delay, s/veh	9.8	9.4	47.7	3.9	44.5	46.5
Ln Grp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1003			634	461	
Approach Delay, s/veh	9.7			13.1	45.1	
Approach LOS	A			B	D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Case No		4.0		9.0	2.0	7.0		
Phs Duration (G+Y+Rc), s		81.9		18.1	13.2	68.7		
Change Period (Y+Rc), s		* 7.1		* 6.7	* 7.4	7.1		
Max Green (Gmax), s		* 66		* 20	* 17	41.9		
Max Allow Headway (MAH), s		3.7		2.2	2.2	3.5		
Max Q Clear (g_c+I1), s		6.1		11.1	5.8	12.3		
Green Ext Time (g_e), s		1.8		0.4	0.1	3.2		
Prob of Phs Call (p_c)		1.00		1.00	0.98	1.00		
Prob of Max Out (p_x)		0.00		0.00	0.00	0.00		
Left-Turn Movement Data								
Assigned Mvmt				7	5	1		
Mvmt Sat Flow, veh/h				3456	3456	0		
Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		3647		0		3647		
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		0		1585		1585		
Left Lane Group Data								
Assigned Mvmt	0	0	0	7	5	1	0	0
Lane Assignment				L	L (Prot)			

Lanes in Grp	0	0	0	2	2	0	0	0
Grp Vol (v), veh/h	0	0	0	314	134	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1728	1728	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	8.9	3.8	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	8.9	3.8	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1728	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	61.6	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	395	199	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.79	0.67	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	702	574	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	43.1	46.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.4	1.5	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	44.5	47.7	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.8	1.6	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	3.9	1.6	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.38	0.17	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	500	0	0	0	753	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	4.1	0.0	0.0	0.0	10.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.1	0.0	0.0	0.0	10.3	0.0	0.0
Lane Grp Cap (c), veh/h	0	2657	0	0	0	2189	0	0
V/C Ratio (X)	0.00	0.19	0.00	0.00	0.00	0.34	0.00	0.00
Avail Cap (c_a), veh/h	0	2657	0	0	0	2189	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	3.7	0.0	0.0	0.0	9.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	3.9	0.0	0.0	0.0	9.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.9	0.0	0.0	0.0	3.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.0	0.0	0.0	0.0	3.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.08	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	147	0	250	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1585	0	1585	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	9.1	0.0	7.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	9.1	0.0	7.2	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	181	0	976	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.81	0.00	0.26	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	322	0	976	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	43.2	0.0	8.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.3	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	46.5	0.0	9.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.7	0.0	2.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	7.9	0.0	2.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.78	0.00	0.11	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	65	0	703	46	81	63
Future Volume (veh/h)	65	0	703	46	81	63
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	0	764	50	88	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	570	0	2517	1123	122	109
Arrive On Green	0.04	0.00	0.71	0.71	0.07	0.07
Sat Flow, veh/h	1781	71	3647	1585	1781	1585
Grp Volume(v), veh/h	71	3.6	764	50	88	68
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	1.0		8.0	1.0	4.8	4.2
Cycle Q Clear(g_c), s	1.0		8.0	1.0	4.8	4.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	570		2517	1123	122	109
V/C Ratio(X)	0.12		0.30	0.04	0.72	0.62
Avail Cap(c_a), veh/h	654		2517	1123	392	349
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.6		5.4	4.4	45.6	45.3
Incr Delay (d2), s/veh	0.0		0.3	0.1	2.9	2.2
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2		2.2	0.2	2.2	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.6		5.7	4.5	48.6	47.5
LnGrp LOS	A		A	A	D	D
Approach Vol, veh/h			814		156	
Approach Delay, s/veh			5.7		48.1	
Approach LOS			A		D	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	10.3	76.8				12.9
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	9.0	51.0				22.0
Max Q Clear Time (g_c+I1), s	3.0	10.0				6.8
Green Ext Time (p_c), s	0.0	2.3				0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	65	0	703	46	81	63
Future Volume (veh/h)	65	0	703	46	81	63
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	0	764	50	88	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	570	0	2517	1123	122	109
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.00	0.71	0.71	0.07	0.07
Unsig. Movement Delay						
Ln Grp Delay, s/veh	3.6	0.0	5.7	4.5	48.6	47.5
Ln Grp LOS	A	A	A	A	D	D
Approach Vol, veh/h		71	814		156	
Approach Delay, s/veh		3.6	5.7		48.1	
Approach LOS		A	A		D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	10.3	76.8	12.9					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	9.0	51.0	22.0					
Max Allow Headway (MAH), s	2.2	3.3	2.4					
Max Q Clear (g_c+I1), s	3.0	10.0	6.8					
Green Ext Time (g_e), s	0.0	2.3	0.1					
Prob of Phs Call (p_c)	0.86	1.00	0.99					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	71	0	88	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	1.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	671	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	70.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	62.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	70.8	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	570	0	122	0	0	0	0	0
V/C Ratio (X)	0.12	0.00	0.72	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	654	0	392	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	3.6	0.0	45.6	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	3.6	0.0	48.6	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.2	0.0	2.1	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.2	0.0	2.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.02	0.00	0.13	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	764	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2517	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2517	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	50	68	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	1.0	4.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.0	4.2	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1123	109	0	0	0	0	0
V/C Ratio (X)	0.00	0.04	0.62	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1123	349	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.4	45.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	2.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.5	47.5	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	1.6	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.2	1.7	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.06	0.10	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		11.9						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	53	3	32	4	0	0	4	96	11	0	108	35
Future Vol, veh/h	53	3	32	4	0	0	4	96	11	0	108	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	3	35	4	0	0	4	104	12	0	117	38

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	196	260	78	178	273	58	155	0	0	116	0	0
Stage 1	136	136	-	118	118	-	-	-	-	-	-	-
Stage 2	60	124	-	60	155	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	745	643	967	768	633	996	1423	-	-	1470	-	-
Stage 1	853	783	-	874	797	-	-	-	-	-	-	-
Stage 2	944	792	-	944	768	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	744	641	967	736	631	996	1423	-	-	1470	-	-
Mov Cap-2 Maneuver	744	641	-	736	631	-	-	-	-	-	-	-
Stage 1	850	783	-	871	795	-	-	-	-	-	-	-
Stage 2	941	790	-	906	768	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	9.9	0.3	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1423	-	-	744	927	736	-	1470	-	-
HCM Lane V/C Ratio	0.003	-	-	0.077	0.041	0.006	-	-	-	-
HCM Control Delay (s)	7.5	-	-	10.2	9.1	9.9	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0	-	0	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	130	19	13	0	0	130
Future Vol, veh/h	130	19	13	0	0	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	141	21	14	0	0	141

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	14	0	-	0	307	7
Stage 1	-	-	-	-	14	-
Stage 2	-	-	-	-	293	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1603	-	-	-	661	1073
Stage 1	-	-	-	-	1007	-
Stage 2	-	-	-	-	731	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1603	-	-	-	603	1073
Mov Cap-2 Maneuver	-	-	-	-	603	-
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	731	-

Approach	EB	WB	SB
HCM Control Delay, s	6.5	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1603	-	-	-	1073
HCM Lane V/C Ratio	0.088	-	-	-	0.132
HCM Control Delay (s)	7.5	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	21	1	0	4	10	10	0	12	2
Future Vol, veh/h	0	0	10	21	1	0	4	10	10	0	12	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	11	23	1	0	4	11	11	0	13	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	39	44	14	45	40	17	15	0	0	22	0	0
Stage 1	14	14	-	25	25	-	-	-	-	-	-	-
Stage 2	25	30	-	20	15	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	966	848	1066	957	852	1062	1603	-	-	1593	-	-
Stage 1	1006	884	-	993	874	-	-	-	-	-	-	-
Stage 2	993	870	-	999	883	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	963	845	1066	946	849	1062	1603	-	-	1593	-	-
Mov Cap-2 Maneuver	963	845	-	946	849	-	-	-	-	-	-	-
Stage 1	1003	884	-	990	871	-	-	-	-	-	-	-
Stage 2	989	867	-	989	883	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	8.9	1.2	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1603	-	-	1066	941	1593	-	-
HCM Lane V/C Ratio	0.003	-	-	0.01	0.025	-	-	-
HCM Control Delay (s)	7.3	0	-	8.4	8.9	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	11	274	46	6	297
Future Vol, veh/h	30	11	274	46	6	297
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	12	298	50	7	323

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	660	323	0	0	348	0
Stage 1	323	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	428	718	-	-	1211	-
Stage 1	734	-	-	-	-	-
Stage 2	723	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	425	718	-	-	1211	-
Mov Cap-2 Maneuver	425	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	719	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	477	1211	-
HCM Lane V/C Ratio	-	-	0.093	0.005	-
HCM Control Delay (s)	-	-	13.3	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	7.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	131	83	246	151	108	223
Future Vol, veh/h	131	83	246	151	108	223
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	142	90	267	164	117	242

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	825	349	0	0	431	0
Stage 1	349	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	342	694	-	-	1129	-
Stage 1	714	-	-	-	-	-
Stage 2	625	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	306	694	-	-	1129	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	560	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.9	0	2.8
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	391	1129	-
HCM Lane V/C Ratio	-	-	0.595	0.104	-
HCM Control Delay (s)	-	-	26.9	8.6	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	3.7	0.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	286	1575	13	215	524	87	54	152	161	111	101	120
Future Volume (veh/h)	286	1575	13	215	524	87	54	152	161	111	101	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	311	1712	14	234	570	95	59	165	175	121	110	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	369	2455	762	346	1800	803	264	390	330	197	390	
Arrive On Green	0.11	0.48	0.48	0.13	0.51	0.51	0.21	0.21	0.21	0.21	0.21	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1283	1870	1585	1040	1870	1585
Grp Volume(v), veh/h	311	1712	14	234	570	95	59	165	175	121	110	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1283	1870	1585	1040	1870	1585
Q Serve(g_s), s	10.6	31.4	0.6	6.4	11.3	3.8	4.9	9.2	11.8	13.7	5.9	0.0
Cycle Q Clear(g_c), s	10.6	31.4	0.6	6.4	11.3	3.8	10.8	9.2	11.8	22.9	5.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	369	2455	762	346	1800	803	264	390	330	197	390	
V/C Ratio(X)	0.84	0.70	0.02	0.68	0.32	0.12	0.22	0.42	0.53	0.61	0.28	
Avail Cap(c_a), veh/h	475	2455	762	346	1800	803	290	427	362	218	427	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.6	24.3	16.3	43.5	17.4	15.5	44.5	41.2	42.3	51.2	39.9	0.0
Incr Delay (d2), s/veh	8.6	1.7	0.0	4.3	0.5	0.3	0.2	0.3	0.5	2.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	12.0	0.2	6.6	4.4	1.3	1.6	4.3	4.7	3.7	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.2	26.0	16.4	47.9	17.9	15.8	44.6	41.5	42.8	53.8	40.1	0.0
LnGrp LOS	E	C	B	D	B	B	D	D	D	D	D	
Approach Vol, veh/h		2037			899			399			231	A
Approach Delay, s/veh		31.3			25.5			42.5			47.3	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	19.3	68.1		32.6	22.4	65.0		32.6
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 13	* 55		27.4	* 14	* 58		27.4
Max Q Clear Time (g_c+I1), s	12.6	13.3		13.8	8.4	33.4		24.9
Green Ext Time (p_c), s	0.2	2.1		0.5	0.0	7.7		0.1

Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	286	1575	13	215	524	87	54	152	161	111	101	120
Future Volume (veh/h)	286	1575	13	215	524	87	54	152	161	111	101	120
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	311	1712	14	234	570	95	59	165	175	121	110	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	369	2455	762	346	1800	803	264	390	330	197	390	
HCM 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
Prop Arrive On Green	0.11	0.48	0.48	0.13	0.51	0.51	0.21	0.21	0.21	0.21	0.21	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	61.2	26.0	16.4	47.9	17.9	15.8	44.6	41.5	42.8	53.8	40.1	0.0
Ln Grp LOS	E	C	B	D	B	B	D	D	D	D	D	
Approach Vol, veh/h		2037			899			399			231	
Approach Delay, s/veh		31.3			25.5			42.5			47.3	
Approach LOS		C			C			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	6	5		8
Case No	2.0	3.0		5.0	3.0	1.3		5.0
Phs Duration (G+Y+Rc), s	19.3	68.1		32.6	65.0	22.4		32.6
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 17	* 55		27.4	* 58	* 14		27.4
Max Allow Headway (MAH), s	2.5	3.5		2.7	3.6	1.3		3.1
Max Q Clear (g_c+I1), s	12.6	13.3		13.8	33.4	8.4		24.9
Green Ext Time (g_e), s	0.2	2.1		0.5	7.7	0.0		0.1
Prob of Phs Call (p_c)	1.00	1.00		1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.16	0.00		0.00	0.00	0.10		1.00

Left-Turn Movement Data				
Assigned Mvmt	1		7		5		3	
Mvmt Sat Flow, veh/h	3456		1283		1781		1040	

Through Movement Data								
Assigned Mvmt		2		4	6			8
Mvmt Sat Flow, veh/h		3554		1870	5106			1870

Right-Turn Movement Data								
Assigned Mvmt		12		14	16			18
Mvmt Sat Flow, veh/h		1585		1585	1585			1585

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	0	5	0	3
Lane Assignment	L (Prot)			L	L (Pr/Pm)			L

Lanes in Grp	2	0	0	1	0	1	0	1
Grp Vol (v), veh/h	311	0	0	59	0	234	0	121
Grp Sat Flow (s), veh/h/ln	1728	0	0	1283	0	1781	0	1040
Q Serve Time (g_s), s	10.6	0.0	0.0	4.9	0.0	6.4	0.0	13.7
Cycle Q Clear Time (g_c), s	10.6	0.0	0.0	10.8	0.0	6.4	0.0	22.9
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1283	0	281	0	1040
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	25.0	0.0	57.7	0.0	25.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	19.1	0.0	26.3	0.0	15.8
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	4.9	0.0	26.3	0.0	13.7
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	369	0	0	264	0	346	0	197
V/C Ratio (X)	0.84	0.00	0.00	0.22	0.00	0.68	0.00	0.61
Avail Cap (c_a), veh/h	475	0	0	290	0	346	0	218
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	52.6	0.0	0.0	44.5	0.0	43.5	0.0	51.2
Incr Delay (d2), s/veh	8.6	0.0	0.0	0.2	0.0	4.3	0.0	2.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	61.2	0.0	0.0	44.6	0.0	47.9	0.0	53.8
1st-Term Q (Q1), veh/ln	4.4	0.0	0.0	1.6	0.0	6.2	0.0	3.6
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.0	0.0	0.4	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	4.9	0.0	0.0	1.6	0.0	6.6	0.0	3.7
%ile Storage Ratio (RQ%)	0.29	0.00	0.00	0.25	0.00	0.62	0.00	0.41
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	570	0	165	1712	0	0	110
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	11.3	0.0	9.2	31.4	0.0	0.0	5.9
Cycle Q Clear Time (g_c), s	0.0	11.3	0.0	9.2	31.4	0.0	0.0	5.9
Lane Grp Cap (c), veh/h	0	1800	0	390	2455	0	0	390
V/C Ratio (X)	0.00	0.32	0.00	0.42	0.70	0.00	0.00	0.28
Avail Cap (c_a), veh/h	0	1800	0	427	2455	0	0	427
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.4	0.0	41.2	24.3	0.0	0.0	39.9
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.3	1.7	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.9	0.0	41.5	26.0	0.0	0.0	40.1
1st-Term Q (Q1), veh/ln	0.0	4.3	0.0	4.2	11.6	0.0	0.0	2.7
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.4	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.4	0.0	4.3	12.0	0.0	0.0	2.8
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.17	0.25	0.00	0.00	0.31
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	95	0	175	14	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	3.8	0.0	11.8	0.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.8	0.0	11.8	0.6	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	803	0	330	762	0	0	330
V/C Ratio (X)	0.00	0.12	0.00	0.53	0.02	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	803	0	362	762	0	0	362
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	15.5	0.0	42.3	16.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.5	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.8	0.0	42.8	16.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	4.6	0.2	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.3	0.0	4.7	0.2	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.74	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	1454	281	210	487	1	292	15	189	110	162	433
Future Volume (veh/h)	17	1454	281	210	487	1	292	15	189	110	162	433
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	1580	305	228	529	1	317	16	205	120	176	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	609	2602	808	165	1493	666	372	460	205	174	235	
Arrive On Green	0.18	0.51	0.51	0.09	0.42	0.42	0.11	0.13	0.13	0.05	0.07	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	18	1580	305	228	529	1	317	16	205	120	176	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.5	26.4	7.6	11.1	12.2	0.0	10.8	0.5	15.5	4.1	5.8	0.0
Cycle Q Clear(g_c), s	0.5	26.4	7.6	11.1	12.2	0.0	10.8	0.5	15.5	4.1	5.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	609	2602	808	165	1493	666	372	460	205	174	235	
V/C Ratio(X)	0.03	0.61	0.38	1.38	0.35	0.00	0.85	0.03	1.00	0.69	0.75	
Avail Cap(c_a), veh/h	609	2602	808	165	1493	666	541	460	205	536	323	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.9	20.9	5.3	54.5	23.7	10.7	52.6	45.7	52.2	56.1	55.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	1.3	205.7	0.7	0.0	6.1	0.0	62.9	1.8	3.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	9.8	4.8	14.2	5.0	0.0	5.0	0.2	9.7	1.8	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.9	22.0	6.6	260.2	24.4	10.7	58.7	45.7	115.1	57.9	58.6	0.0
LnGrp LOS	D	C	A	F	C	B	E	D	F	E	E	
Approach Vol, veh/h		1903			758			538			296	A
Approach Delay, s/veh		19.7			95.3			79.8			58.3	
Approach LOS		B			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.8	57.0	12.4	21.7	17.0	68.8	19.1	15.0
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 6.2	5.9	* 7.7	6.2	* 7.1
Max Green Setting (Gmax), s	12.3	* 50	18.6	* 12	11.1	* 54	18.8	* 11
Max Q Clear Time (g_c+I1), s	12.5	14.2	6.1	17.5	13.1	28.4	12.8	7.8
Green Ext Time (p_c), s	0.0	1.8	0.0	0.0	0.0	7.5	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	48.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	1454	281	210	487	1	292	15	189	110	162	433
Future Volume (veh/h)	17	1454	281	210	487	1	292	15	189	110	162	433
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	1580	305	228	529	1	317	16	205	120	176	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	609	2602	808	165	1493	666	372	460	205	174	235	
HCM 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
Prop Arrive On Green	0.18	0.51	0.51	0.09	0.42	0.42	0.11	0.13	0.13	0.05	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	40.9	22.0	6.6	260.2	24.4	10.7	58.7	45.7	115.1	57.9	58.6	0.0
Ln Grp LOS	D	C	A	F	C	B	E	D	F	E	E	
Approach Vol, veh/h		1903			758			538			296	
Approach Delay, s/veh		19.7			95.3			79.8			58.3	
Approach LOS		B			F			E			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	3	4	5	6	8	7
Case No	3.0	2.0	2.0	3.0	2.0	3.0	3.0	2.0
Phs Duration (G+Y+Rc), s	57.0	28.8	12.4	21.7	17.0	68.8	15.0	19.1
Change Period (Y+Rc), s	* 6.6	7.7	6.4	* 6.2	5.9	* 7.7	* 7.1	6.2
Max Green (Gmax), s	* 50	12.3	18.6	* 12	11.1	* 54	* 11	18.8
Max Allow Headway (MAH), s	3.6	1.3	1.6	2.3	1.3	3.5	3.1	1.4
Max Q Clear (g_c+I1), s	14.2	2.5	6.1	17.5	13.1	28.4	7.8	12.8
Green Ext Time (g_e), s	1.8	0.0	0.0	0.0	0.0	7.5	0.1	0.1
Prob of Phs Call (p_c)	1.00	0.45	0.98	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00

Left-Turn Movement Data								
Assigned Mvmt		1	3		5			7
Mvmt Sat Flow, veh/h		3456	3456		1781			3456

Through Movement Data								
Assigned Mvmt	2			4		6	8	
Mvmt Sat Flow, veh/h	3554			3554		5106	3554	

Right-Turn Movement Data								
Assigned Mvmt	12			14		16	18	
Mvmt Sat Flow, veh/h	1585			1585		1585	1585	

Left Lane Group Data								
Assigned Mvmt	0	1	3	0	5	0	0	7
Lane Assignment		L (Prot)	L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	0	2	2	0	1	0	0	2
Grp Vol (v), veh/h	0	18	120	0	228	0	0	317
Grp Sat Flow (s), veh/h/ln	0	1728	1728	0	1781	0	0	1728
Q Serve Time (g_s), s	0.0	0.5	4.1	0.0	11.1	0.0	0.0	10.8
Cycle Q Clear Time (g_c), s	0.0	0.5	4.1	0.0	11.1	0.0	0.0	10.8
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	609	174	0	165	0	0	372
V/C Ratio (X)	0.00	0.03	0.69	0.00	1.38	0.00	0.00	0.85
Avail Cap (c_a), veh/h	0	609	536	0	165	0	0	541
Upstream Filter (I)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	40.9	56.1	0.0	54.5	0.0	0.0	52.6
Incr Delay (d2), s/veh	0.0	0.0	1.8	0.0	205.7	0.0	0.0	6.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	40.9	57.9	0.0	260.2	0.0	0.0	58.7
1st-Term Q (Q1), veh/ln	0.0	0.2	1.8	0.0	4.8	0.0	0.0	4.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	1.8	0.0	14.2	0.0	0.0	5.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.20	0.00	1.61	0.00	0.00	0.49
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	15.8	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	8	0
Lane Assignment	T			T		T	T	
Lanes in Grp	2	0	0	2	0	3	2	0
Grp Vol (v), veh/h	529	0	0	16	0	1580	176	0
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	12.2	0.0	0.0	0.5	0.0	26.4	5.8	0.0
Cycle Q Clear Time (g_c), s	12.2	0.0	0.0	0.5	0.0	26.4	5.8	0.0
Lane Grp Cap (c), veh/h	1493	0	0	460	0	2602	235	0
V/C Ratio (X)	0.35	0.00	0.00	0.03	0.00	0.61	0.75	0.00
Avail Cap (c_a), veh/h	1493	0	0	460	0	2602	323	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	23.7	0.0	0.0	45.7	0.0	20.9	55.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.0	0.0	1.1	3.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	24.4	0.0	0.0	45.7	0.0	22.0	58.6	0.0
1st-Term Q (Q1), veh/ln	4.8	0.0	0.0	0.2	0.0	9.6	2.6	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.3	0.1	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	5.0	0.0	0.0	0.2	0.0	9.8	2.7	0.0
%ile Storage Ratio (RQ%)	0.12	0.00	0.00	0.01	0.00	0.51	0.09	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	18	0
Lane Assignment	R			R		R	R	
Lanes in Grp	1	0	0	1	0	1	1	0
Grp Vol (v), veh/h	1	0	0	205	0	305	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	1585	0
Q Serve Time (g_s), s	0.0	0.0	0.0	15.5	0.0	7.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.5	0.0	7.6	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	666	0	0	205	0	808	105	0
V/C Ratio (X)	0.00	0.00	0.00	1.00	0.00	0.38	0.00	0.00
Avail Cap (c_a), veh/h	666	0	0	205	0	808	144	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	10.7	0.0	0.0	52.2	0.0	5.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	62.9	0.0	1.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	10.7	0.0	0.0	115.1	0.0	6.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.1	0.0	4.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	3.6	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	9.7	0.0	4.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.95	0.00	0.55	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	48.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1082	168	155	636	276	168
Future Volume (veh/h)	1082	168	155	636	276	168
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1176	183	168	691	300	183
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2220	990	224	2670	462	212
Arrive On Green	0.62	0.62	0.06	0.75	0.13	0.13
Sat Flow, veh/h	3647	1585	3456	3647	3456	1585
Grp Volume(v), veh/h	1176	183	168	691	300	183
Grp Sat Flow(s),veh/h/ln	1777	1585	1728	1777	1728	1585
Q Serve(g_s), s	22.3	5.9	5.7	7.2	9.9	13.6
Cycle Q Clear(g_c), s	22.3	5.9	5.7	7.2	9.9	13.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2220	990	224	2670	462	212
V/C Ratio(X)	0.53	0.18	0.75	0.26	0.65	0.86
Avail Cap(c_a), veh/h	2220	990	363	2670	959	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.6	9.5	55.2	4.6	49.3	50.9
Incr Delay (d2), s/veh	0.9	0.4	1.9	0.2	0.6	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	1.9	2.5	2.0	4.3	11.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.5	10.0	57.0	4.8	49.9	54.9
LnGrp LOS	B	A	E	A	D	D
Approach Vol, veh/h	1359			859	483	
Approach Delay, s/veh	13.1			15.1	51.8	
Approach LOS	B			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.3		22.7	15.2	82.1
Change Period (Y+Rc), s		* 7.1		* 6.7	* 7.4	7.1
Max Green Setting (Gmax), s		* 73		* 33	* 13	52.9
Max Q Clear Time (g_c+I1), s		9.2		15.6	7.7	24.3
Green Ext Time (p_c), s		2.6		0.5	0.1	5.4

Intersection Summary	
HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1082	168	155	636	276	168
Future Volume (veh/h)	1082	168	155	636	276	168
Number	6	16	5	2	7	14
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1176	183	168	691	300	183
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence			Yes		Yes	
Cap, veh/h	2220	990	224	2670	462	212
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.62	0.62	0.06	0.75	0.13	0.13
Unsig. Movement Delay						
Ln Grp Delay, s/veh	13.5	10.0	57.0	4.8	49.9	54.9
Ln Grp LOS	B	A	E	A	D	D
Approach Vol, veh/h	1359			859	483	
Approach Delay, s/veh	13.1			15.1	51.8	
Approach LOS	B			B	D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Case No		4.0		9.0	2.0	7.0		
Phs Duration (G+Y+Rc), s		97.3		22.7	15.2	82.1		
Change Period (Y+Rc), s		* 7.1		* 6.7	* 7.4	7.1		
Max Green (Gmax), s		* 73		* 33	* 13	52.9		
Max Allow Headway (MAH), s		3.7		2.2	2.2	3.6		
Max Q Clear (g_c+I1), s		9.2		15.6	7.7	24.3		
Green Ext Time (g_e), s		2.6		0.5	0.1	5.4		
Prob of Phs Call (p_c)		1.00		1.00	1.00	1.00		
Prob of Max Out (p_x)		0.00		0.00	0.00	0.00		
Left-Turn Movement Data								
Assigned Mvmt				7	5	1		
Mvmt Sat Flow, veh/h				3456	3456	0		
Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		3647		0		3647		
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		0		1585		1585		
Left Lane Group Data								
Assigned Mvmt	0	0	0	7	5	1	0	0
Lane Assignment				L	L (Prot)			

Lanes in Grp	0	0	0	2	2	0	0	0
Grp Vol (v), veh/h	0	0	0	300	168	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1728	1728	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	9.9	5.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	9.9	5.7	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1728	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	75.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	462	224	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.65	0.75	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	959	363	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	49.3	55.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	1.9	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	49.9	57.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	4.3	2.4	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	4.3	2.5	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.42	0.26	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	691	0	0	0	1176	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	7.2	0.0	0.0	0.0	22.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.2	0.0	0.0	0.0	22.3	0.0	0.0
Lane Grp Cap (c), veh/h	0	2670	0	0	0	2220	0	0
V/C Ratio (X)	0.00	0.26	0.00	0.00	0.00	0.53	0.00	0.00
Avail Cap (c_a), veh/h	0	2670	0	0	0	2220	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.6	0.0	0.0	0.0	12.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.8	0.0	0.0	0.0	13.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	0.0	0.0	7.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.0	0.0	0.0	0.0	7.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.19	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	183	0	183	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1585	0	1585	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	13.6	0.0	5.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	13.6	0.0	5.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	212	0	990	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.86	0.00	0.18	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	440	0	990	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	50.9	0.0	9.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.0	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	54.9	0.0	10.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	11.4	0.0	1.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	11.6	0.0	1.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	1.15	0.00	0.09	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	0	871	41	57	66
Future Volume (veh/h)	22	0	871	41	57	66
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	0	947	45	62	72
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	487	0	2721	1214	109	97
Arrive On Green	0.02	0.00	0.77	0.77	0.06	0.06
Sat Flow, veh/h	1781	24	3647	1585	1781	1585
Grp Volume(v), veh/h	24	3.2	947	45	62	72
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	0.3		10.2	0.8	4.1	5.4
Cycle Q Clear(g_c), s	0.3		10.2	0.8	4.1	5.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	487		2721	1214	109	97
V/C Ratio(X)	0.05		0.35	0.04	0.57	0.74
Avail Cap(c_a), veh/h	610		2721	1214	341	304
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.2		4.5	3.4	54.8	55.4
Incr Delay (d2), s/veh	0.0		0.4	0.1	1.7	4.0
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1		2.8	0.2	1.9	2.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.2		4.8	3.5	56.5	59.4
LnGrp LOS	A		A	A	E	E
Approach Vol, veh/h			992		134	
Approach Delay, s/veh			4.8		58.0	
Approach LOS			A		E	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	8.8	97.9				13.4
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	11.0	68.0				23.0
Max Q Clear Time (g_c+I1), s	2.3	12.2				7.4
Green Ext Time (p_c), s	0.0	3.0				0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	0	871	41	57	66
Future Volume (veh/h)	22	0	871	41	57	66
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	0	947	45	62	72
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	487	0	2721	1214	109	97
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.02	0.00	0.77	0.77	0.06	0.06
Unsig. Movement Delay						
Ln Grp Delay, s/veh	3.2	0.0	4.8	3.5	56.5	59.4
Ln Grp LOS	A	A	A	A	E	E
Approach Vol, veh/h		24	992		134	
Approach Delay, s/veh		3.2	4.8		58.0	
Approach LOS		A	A		E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	8.8	97.9	13.4					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	11.0	68.0	23.0					
Max Allow Headway (MAH), s	2.2	3.3	2.4					
Max Q Clear (g_c+I1), s	2.3	12.2	7.4					
Green Ext Time (g_e), s	0.0	3.0	0.1					
Prob of Phs Call (p_c)	0.55	1.00	0.99					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	24	0	62	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	0.3	0.0	4.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.3	0.0	4.1	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	568	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	91.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	81.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	91.9	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	487	0	109	0	0	0	0	0
V/C Ratio (X)	0.05	0.00	0.57	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	610	0	341	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	3.2	0.0	54.8	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	3.2	0.0	56.5	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.1	0.0	1.8	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.1	0.0	1.9	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.01	0.00	0.11	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	947	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	10.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2721	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2721	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	45	72	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.8	5.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.8	5.4	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1214	97	0	0	0	0	0
V/C Ratio (X)	0.00	0.04	0.74	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1214	304	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	3.4	55.4	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	4.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	3.5	59.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	2.1	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.2	2.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.13	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		11.0						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	30	44	1	1	13	48	2	0	66	7
Future Vol, veh/h	5	2	30	44	1	1	13	48	2	0	66	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	100	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	2	33	48	1	1	14	52	2	0	72	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	131	158	40	118	161	27	80	0	0	54	0	0
Stage 1	76	76	-	81	81	-	-	-	-	-	-	-
Stage 2	55	82	-	37	80	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	828	733	1022	846	730	1042	1516	-	-	1549	-	-
Stage 1	924	831	-	918	827	-	-	-	-	-	-	-
Stage 2	951	826	-	974	828	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	821	726	1022	811	723	1042	1516	-	-	1549	-	-
Mov Cap-2 Maneuver	821	726	-	811	723	-	-	-	-	-	-	-
Stage 1	916	831	-	910	820	-	-	-	-	-	-	-
Stage 2	940	819	-	940	828	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	9.7	1.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1516	-	-	821	997	811	854	1549	-	-
HCM Lane V/C Ratio	0.009	-	-	0.007	0.035	0.059	0.003	-	-	-
HCM Control Delay (s)	7.4	-	-	9.4	8.7	9.7	9.2	0	-	-
HCM Lane LOS	A	-	-	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.2	0	0	-	-

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	47	7	18	0	1	55
Future Vol, veh/h	47	7	18	0	1	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	8	20	0	1	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	20	0	-	0	126	10
Stage 1	-	-	-	-	20	-
Stage 2	-	-	-	-	106	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1595	-	-	-	856	1069
Stage 1	-	-	-	-	1000	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1595	-	-	-	829	1069
Mov Cap-2 Maneuver	-	-	-	-	829	-
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	907	-

Approach	EB	WB	SB
HCM Control Delay, s	6.4	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1595	-	-	-	1064
HCM Lane V/C Ratio	0.032	-	-	-	0.057
HCM Control Delay (s)	7.3	-	-	-	8.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	1	8	33	2	1	5	20	22	0	15	1
Future Vol, veh/h	7	1	8	33	2	1	5	20	22	0	15	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	1	9	36	2	1	5	22	24	0	16	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	63	73	17	66	61	34	17	0	0	46	0	0
Stage 1	17	17	-	44	44	-	-	-	-	-	-	-
Stage 2	46	56	-	22	17	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	932	817	1062	927	830	1039	1600	-	-	1562	-	-
Stage 1	1002	881	-	970	858	-	-	-	-	-	-	-
Stage 2	968	848	-	996	881	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	927	815	1062	917	828	1039	1600	-	-	1562	-	-
Mov Cap-2 Maneuver	927	815	-	917	828	-	-	-	-	-	-	-
Stage 1	999	881	-	967	855	-	-	-	-	-	-	-
Stage 2	962	845	-	987	881	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.7	9.1	0.8	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1600	-	-	981	915	1562	-	-
HCM Lane V/C Ratio	0.003	-	-	0.018	0.043	-	-	-
HCM Control Delay (s)	7.3	0	-	8.7	9.1	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

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Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	7	162	21	2	331
Future Vol, veh/h	35	7	162	21	2	331
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	8	176	23	2	360

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	552	188	0	0	199	0
Stage 1	188	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	495	854	-	-	1373	-
Stage 1	844	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	495	854	-	-	1373	-
Mov Cap-2 Maneuver	495	-	-	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	702	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	532	1373	-
HCM Lane V/C Ratio	-	-	0.086	0.002	-
HCM Control Delay (s)	-	-	12.4	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	7.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	141	82	106	12	136	221
Future Vol, veh/h	141	82	106	12	136	221
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	153	89	115	13	148	240

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	658	122	0	0	128	0
Stage 1	122	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	429	929	-	-	1458	-
Stage 1	903	-	-	-	-	-
Stage 2	587	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	385	929	-	-	1458	-
Mov Cap-2 Maneuver	385	-	-	-	-	-
Stage 1	903	-	-	-	-	-
Stage 2	527	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.3	0	3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	491	1458	-
HCM Lane V/C Ratio	-	-	0.494	0.101	-
HCM Control Delay (s)	-	-	19.3	7.7	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.7	0.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	845	4	169	520	53	21	59	68	77	81	130
Future Volume (veh/h)	171	845	4	169	520	53	21	59	68	77	81	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	918	4	184	565	58	23	64	74	84	88	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	1976	613	711	2109	940	170	222	188	181	222	
Arrive On Green	0.07	0.39	0.39	0.27	0.59	0.59	0.12	0.12	0.12	0.12	0.12	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1309	1870	1585	1251	1870	1585
Grp Volume(v), veh/h	186	918	4	184	565	58	23	64	74	84	88	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1309	1870	1585	1251	1870	1585
Q Serve(g_s), s	5.3	13.4	0.2	0.0	7.7	1.5	1.7	3.1	4.3	6.6	4.4	0.0
Cycle Q Clear(g_c), s	5.3	13.4	0.2	0.0	7.7	1.5	6.0	3.1	4.3	9.7	4.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	1976	613	711	2109	940	170	222	188	181	222	
V/C Ratio(X)	0.73	0.46	0.01	0.26	0.27	0.06	0.14	0.29	0.39	0.46	0.40	
Avail Cap(c_a), veh/h	674	1976	613	711	2109	940	282	382	323	288	382	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.3	22.9	18.8	16.2	9.8	8.6	43.6	40.2	40.8	44.7	40.8	0.0
Incr Delay (d2), s/veh	1.5	0.8	0.0	0.1	0.3	0.1	0.1	0.3	0.5	0.7	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	5.1	0.1	2.5	2.6	0.5	0.5	1.4	1.7	2.1	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	23.7	18.9	16.3	10.1	8.7	43.7	40.5	41.3	45.3	41.2	0.0
LnGrp LOS	D	C	B	B	B	A	D	D	D	D	D	
Approach Vol, veh/h		1108			807			161			172	A
Approach Delay, s/veh		27.5			11.4			41.3			43.2	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.9	66.6		19.4	34.6	46.0		19.4
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 20	* 39		20.4	* 20	* 39		20.4
Max Q Clear Time (g_c+I1), s	7.3	9.7		8.0	2.0	15.4		11.7
Green Ext Time (p_c), s	0.2	2.0		0.1	0.0	3.4		0.2

Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	845	4	169	520	53	21	59	68	77	81	130
Future Volume (veh/h)	171	845	4	169	520	53	21	59	68	77	81	130
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	918	4	184	565	58	23	64	74	84	88	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	256	1976	613	711	2109	940	170	222	188	181	222	
HCM 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
Prop Arrive On Green	0.07	0.39	0.39	0.27	0.59	0.59	0.12	0.12	0.12	0.12	0.12	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	46.8	23.7	18.9	16.3	10.1	8.7	43.7	40.5	41.3	45.3	41.2	0.0
Ln Grp LOS	D	C	B	B	B	A	D	D	D	D	D	
Approach Vol, veh/h		1108			807			161			172	
Approach Delay, s/veh		27.5			11.4			41.3			43.2	
Approach LOS		C			B			D			D	

Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4	6	5		8			
Case No		2.0	3.0		5.0	3.0	1.3		5.0			
Phs Duration (G+Y+Rc), s		13.9	66.6		19.4	46.0	34.6		19.4			
Change Period (Y+Rc), s		* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6			
Max Green (Gmax), s		* 20	* 39		20.4	* 39	* 20		20.4			
Max Allow Headway (MAH), s		2.5	3.5		2.7	3.6	1.3		2.9			
Max Q Clear (g_c+I1), s		7.3	9.7		8.0	15.4	2.0		11.7			
Green Ext Time (g_e), s		0.2	2.0		0.1	3.4	0.0		0.2			
Prob of Phs Call (p_c)		0.99	1.00		1.00	1.00	0.99		1.00			
Prob of Max Out (p_x)		0.00	0.00		0.00	0.00	0.00		0.00			

Left-Turn Movement Data												
Assigned Mvmt		1			7		5		3			
Mvmt Sat Flow, veh/h		3456			1309		1781		1251			

Through Movement Data												
Assigned Mvmt			2		4	6			8			
Mvmt Sat Flow, veh/h			3554		1870	5106			1870			

Right-Turn Movement Data												
Assigned Mvmt			12		14	16			18			
Mvmt Sat Flow, veh/h			1585		1585	1585			1585			

Left Lane Group Data												
Assigned Mvmt		1	0	0	7	0	5	0	3			
Lane Assignment		L (Prot)			L		L (Pr/Pm)		L			

Lanes in Grp	2	0	0	1	0	1	0	1
Grp Vol (v), veh/h	186	0	0	23	0	184	0	84
Grp Sat Flow (s), veh/h/ln	1728	0	0	1309	0	1781	0	1251
Q Serve Time (g_s), s	5.3	0.0	0.0	1.7	0.0	0.0	0.0	6.6
Cycle Q Clear Time (g_c), s	5.3	0.0	0.0	6.0	0.0	0.0	0.0	9.7
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1309	0	606	0	1251
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	11.8	0.0	38.7	0.0	11.8
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	7.5	0.0	25.3	0.0	8.7
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	1.7	0.0	20.7	0.0	6.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	256	0	0	170	0	711	0	181
V/C Ratio (X)	0.73	0.00	0.00	0.14	0.00	0.26	0.00	0.46
Avail Cap (c_a), veh/h	674	0	0	282	0	711	0	288
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	45.3	0.0	0.0	43.6	0.0	16.2	0.0	44.7
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.1	0.0	0.1	0.0	0.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	46.8	0.0	0.0	43.7	0.0	16.3	0.0	45.3
1st-Term Q (Q1), veh/ln	2.2	0.0	0.0	0.5	0.0	2.5	0.0	2.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	2.2	0.0	0.0	0.5	0.0	2.5	0.0	2.1
%ile Storage Ratio (RQ%)	0.13	0.00	0.00	0.09	0.00	0.23	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	565	0	64	918	0	0	88
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	7.7	0.0	3.1	13.4	0.0	0.0	4.4
Cycle Q Clear Time (g_c), s	0.0	7.7	0.0	3.1	13.4	0.0	0.0	4.4
Lane Grp Cap (c), veh/h	0	2109	0	222	1976	0	0	222
V/C Ratio (X)	0.00	0.27	0.00	0.29	0.46	0.00	0.00	0.40
Avail Cap (c_a), veh/h	0	2109	0	382	1976	0	0	382
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.8	0.0	40.2	22.9	0.0	0.0	40.8
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.3	0.8	0.0	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.1	0.0	40.5	23.7	0.0	0.0	41.2
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	1.4	4.9	0.0	0.0	2.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.6	0.0	1.4	5.1	0.0	0.0	2.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.06	0.10	0.00	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	58	0	74	4	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	1.5	0.0	4.3	0.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.5	0.0	4.3	0.2	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	940	0	188	613	0	0	188
V/C Ratio (X)	0.00	0.06	0.00	0.39	0.01	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	940	0	323	613	0	0	323
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.6	0.0	40.8	18.8	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.7	0.0	41.3	18.9	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	1.7	0.1	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	1.7	0.1	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.27	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	765	254	136	508	319	149
Future Volume (veh/h)	765	254	136	508	319	149
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	832	276	148	552	347	162
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2139	954	214	2622	429	197
Arrive On Green	0.60	0.60	0.06	0.74	0.12	0.12
Sat Flow, veh/h	3647	1585	3456	3647	3456	1585
Grp Volume(v), veh/h	832	276	148	552	347	162
Grp Sat Flow(s),veh/h/ln	1777	1585	1728	1777	1728	1585
Q Serve(g_s), s	12.2	8.4	4.2	4.8	9.8	10.0
Cycle Q Clear(g_c), s	12.2	8.4	4.2	4.8	9.8	10.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2139	954	214	2622	429	197
V/C Ratio(X)	0.39	0.29	0.69	0.21	0.81	0.82
Avail Cap(c_a), veh/h	2139	954	505	2622	736	338
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	9.6	46.0	4.1	42.6	42.7
Incr Delay (d2), s/veh	0.5	0.8	1.5	0.2	1.4	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	2.6	1.8	1.2	4.3	8.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.9	10.4	47.5	4.2	44.0	46.0
LnGrp LOS	B	B	D	A	D	D
Approach Vol, veh/h	1108			700	509	
Approach Delay, s/veh	10.7			13.4	44.7	
Approach LOS	B			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		80.9		19.1	13.6	67.3
Change Period (Y+Rc), s		* 7.1		* 6.7	* 7.4	7.1
Max Green Setting (Gmax), s		* 65		* 21	* 15	42.9
Max Q Clear Time (g_c+I1), s		6.8		12.0	6.2	14.2
Green Ext Time (p_c), s		2.0		0.4	0.1	3.7

Intersection Summary	
HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	765	254	136	508	319	149
Future Volume (veh/h)	765	254	136	508	319	149
Number	6	16	5	2	7	14
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	832	276	148	552	347	162
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence			Yes		Yes	
Cap, veh/h	2139	954	214	2622	429	197
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.60	0.60	0.06	0.74	0.12	0.12
Unsig. Movement Delay						
Ln Grp Delay, s/veh	10.9	10.4	47.5	4.2	44.0	46.0
Ln Grp LOS	B	B	D	A	D	D
Approach Vol, veh/h	1108			700	509	
Approach Delay, s/veh	10.7			13.4	44.7	
Approach LOS	B			B	D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Case No		4.0		9.0	2.0	7.0		
Phs Duration (G+Y+Rc), s		80.9		19.1	13.6	67.3		
Change Period (Y+Rc), s		* 7.1		* 6.7	* 7.4	7.1		
Max Green (Gmax), s		* 65		* 21	* 15	42.9		
Max Allow Headway (MAH), s		3.7		2.2	2.2	3.5		
Max Q Clear (g_c+I1), s		6.8		12.0	6.2	14.2		
Green Ext Time (g_e), s		2.0		0.4	0.1	3.7		
Prob of Phs Call (p_c)		1.00		1.00	0.98	1.00		
Prob of Max Out (p_x)		0.00		0.00	0.00	0.00		
Left-Turn Movement Data								
Assigned Mvmt				7	5	1		
Mvmt Sat Flow, veh/h				3456	3456	0		
Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		3647		0		3647		
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		0		1585		1585		
Left Lane Group Data								
Assigned Mvmt	0	0	0	7	5	1	0	0
Lane Assignment				L	L (Prot)			

Lanes in Grp	0	0	0	2	2	0	0	0
Grp Vol (v), veh/h	0	0	0	347	148	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1728	1728	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	9.8	4.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	9.8	4.2	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1728	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	60.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	429	214	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.81	0.69	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	736	505	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	42.6	46.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.4	1.5	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	44.0	47.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	4.2	1.7	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	4.3	1.8	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.42	0.18	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	552	0	0	0	832	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	4.8	0.0	0.0	0.0	12.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.8	0.0	0.0	0.0	12.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	2622	0	0	0	2139	0	0
V/C Ratio (X)	0.00	0.21	0.00	0.00	0.00	0.39	0.00	0.00
Avail Cap (c_a), veh/h	0	2622	0	0	0	2139	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.1	0.0	0.0	0.0	10.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.2	0.0	0.0	0.0	10.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	0.0	0.0	4.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	0.0	0.0	4.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.10	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	162	0	276	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1585	0	1585	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	10.0	0.0	8.4	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	10.0	0.0	8.4	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	197	0	954	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.82	0.00	0.29	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	338	0	954	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	42.7	0.0	9.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.3	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	46.0	0.0	10.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	8.4	0.0	2.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	8.6	0.0	2.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.85	0.00	0.13	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	72	0	776	51	89	70
Future Volume (veh/h)	72	0	776	51	89	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	0	843	55	97	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	529	0	2494	1112	132	117
Arrive On Green	0.04	0.00	0.70	0.70	0.07	0.07
Sat Flow, veh/h	1781	78	3647	1585	1781	1585
Grp Volume(v), veh/h	78	3.9	843	55	97	76
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	1.2		9.3	1.1	5.3	4.7
Cycle Q Clear(g_c), s	1.2		9.3	1.1	5.3	4.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	529		2494	1112	132	117
V/C Ratio(X)	0.15		0.34	0.05	0.74	0.65
Avail Cap(c_a), veh/h	681		2494	1112	321	285
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.9		5.8	4.6	45.4	45.0
Incr Delay (d2), s/veh	0.0		0.4	0.1	3.0	2.2
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3		2.6	0.3	2.5	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.9		6.2	4.7	48.3	47.3
LnGrp LOS	A		A	A	D	D
Approach Vol, veh/h			898		173	
Approach Delay, s/veh			6.1		47.9	
Approach LOS			A		D	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	10.4	76.2				13.4
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	13.0	51.0				18.0
Max Q Clear Time (g_c+I1), s	11.3	11.3				7.3
Green Ext Time (p_c), s	0.0	2.6				0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	72	0	776	51	89	70
Future Volume (veh/h)	72	0	776	51	89	70
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	0	843	55	97	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	529	0	2494	1112	132	117
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.00	0.70	0.70	0.07	0.07
Unsig. Movement Delay						
Ln Grp Delay, s/veh	3.9	0.0	6.2	4.7	48.3	47.3
Ln Grp LOS	A	A	A	A	D	D
Approach Vol, veh/h		78	898		173	
Approach Delay, s/veh		3.9	6.1		47.9	
Approach LOS		A	A		D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	10.4	76.2	13.4					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	51.0	18.0					
Max Allow Headway (MAH), s	2.2	3.3	2.4					
Max Q Clear (g_c+I1), s	3.2	11.3	7.3					
Green Ext Time (g_e), s	0.0	2.6	0.1					
Prob of Phs Call (p_c)	0.89	1.00	0.99					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	78	0	97	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	1.2	0.0	5.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.2	0.0	5.3	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	620	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	70.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	60.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	70.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	529	0	132	0	0	0	0	0
V/C Ratio (X)	0.15	0.00	0.74	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	681	0	321	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	3.9	0.0	45.4	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	3.9	0.0	48.3	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.3	0.0	2.3	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.3	0.0	2.5	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.03	0.00	0.14	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	843	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2494	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2494	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	55	76	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	1.1	4.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.1	4.7	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1112	117	0	0	0	0	0
V/C Ratio (X)	0.00	0.05	0.65	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1112	285	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.6	45.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	2.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.7	47.3	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.3	1.8	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.3	1.9	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.07	0.11	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		12.2						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	3	35	4	0	0	4	106	12	0	119	39
Future Vol, veh/h	59	3	35	4	0	0	4	106	12	0	119	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	3	38	4	0	0	4	115	13	0	129	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	216	286	86	196	301	64	171	0	0	128	0	0
Stage 1	150	150	-	130	130	-	-	-	-	-	-	-
Stage 2	66	136	-	66	171	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	722	622	956	745	610	987	1404	-	-	1456	-	-
Stage 1	837	772	-	860	788	-	-	-	-	-	-	-
Stage 2	937	783	-	937	756	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	721	620	956	711	608	987	1404	-	-	1456	-	-
Mov Cap-2 Maneuver	721	620	-	711	608	-	-	-	-	-	-	-
Stage 1	834	772	-	857	786	-	-	-	-	-	-	-
Stage 2	934	781	-	896	756	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	10.1	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1404	-	-	721	917	711	-	1456	-	-
HCM Lane V/C Ratio	0.003	-	-	0.089	0.045	0.006	-	-	-	-
HCM Control Delay (s)	7.6	-	-	10.5	9.1	10.1	0	0	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0	-	0	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	144	21	14	0	0	144
Future Vol, veh/h	144	21	14	0	0	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	157	23	15	0	0	157

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	15	0	-	0	341	8
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	326	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1601	-	-	-	629	1072
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	704	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1601	-	-	-	567	1072
Mov Cap-2 Maneuver	-	-	-	-	567	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	704	-

Approach	EB	WB	SB
HCM Control Delay, s	6.5	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1601	-	-	-	1072
HCM Lane V/C Ratio	0.098	-	-	-	0.146
HCM Control Delay (s)	7.5	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	23	1	0	4	11	11	0	13	2
Future Vol, veh/h	0	0	11	23	1	0	4	11	11	0	13	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	25	1	0	4	12	12	0	14	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	42	47	15	47	42	18	16	0	0	24	0	0
Stage 1	15	15	-	26	26	-	-	-	-	-	-	-
Stage 2	27	32	-	21	16	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	961	845	1065	954	850	1061	1602	-	-	1591	-	-
Stage 1	1005	883	-	992	874	-	-	-	-	-	-	-
Stage 2	990	868	-	998	882	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	958	842	1065	942	847	1061	1602	-	-	1591	-	-
Mov Cap-2 Maneuver	958	842	-	942	847	-	-	-	-	-	-	-
Stage 1	1002	883	-	989	871	-	-	-	-	-	-	-
Stage 2	986	865	-	987	882	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	8.9	1.1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1602	-	-	1065	938	1591	-	-
HCM Lane V/C Ratio	0.003	-	-	0.011	0.028	-	-	-
HCM Control Delay (s)	7.3	0	-	8.4	8.9	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	11	303	51	7	328
Future Vol, veh/h	33	11	303	51	7	328
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	12	329	55	8	357

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	730	357	0	0	384	0
Stage 1	357	-	-	-	-	-
Stage 2	373	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	389	687	-	-	1174	-
Stage 1	708	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	386	687	-	-	1174	-
Mov Cap-2 Maneuver	386	-	-	-	-	-
Stage 1	708	-	-	-	-	-
Stage 2	691	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	433	1174	-
HCM Lane V/C Ratio	-	-	0.11	0.006	-
HCM Control Delay (s)	-	-	14.3	8.1	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	10.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	145	92	272	167	119	246
Future Vol, veh/h	145	92	272	167	119	246
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	158	100	296	182	129	267

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	912	387	0	0	478	0
Stage 1	387	-	-	-	-	-
Stage 2	525	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	304	661	-	-	1084	-
Stage 1	686	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	268	661	-	-	1084	-
Mov Cap-2 Maneuver	268	-	-	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	522	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	39.7	0	2.9
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	348	1084	-
HCM Lane V/C Ratio	-	-	0.74	0.119	-
HCM Control Delay (s)	-	-	39.7	8.8	-
HCM Lane LOS	-	-	E	A	-
HCM 95th %tile Q(veh)	-	-	5.7	0.4	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	1739	14	237	579	96	60	168	178	123	112	132
Future Volume (veh/h)	316	1739	14	237	579	96	60	168	178	123	112	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	343	1890	15	258	629	104	65	183	193	134	122	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	412	2282	709	363	1716	765	233	344	292	168	344	
Arrive On Green	0.12	0.45	0.45	0.15	0.48	0.48	0.18	0.18	0.18	0.18	0.18	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1269	1870	1585	1007	1870	1585
Grp Volume(v), veh/h	343	1890	15	258	629	104	65	183	193	134	122	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1269	1870	1585	1007	1870	1585
Q Serve(g_s), s	9.7	32.5	0.5	7.8	11.1	3.6	4.7	8.8	11.3	9.6	5.7	0.0
Cycle Q Clear(g_c), s	9.7	32.5	0.5	7.8	11.1	3.6	10.4	8.8	11.3	18.4	5.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	412	2282	709	363	1716	765	233	344	292	168	344	
V/C Ratio(X)	0.83	0.83	0.02	0.71	0.37	0.14	0.28	0.53	0.66	0.80	0.35	
Avail Cap(c_a), veh/h	536	2282	709	384	1716	765	233	344	292	168	344	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.1	24.3	15.4	37.5	16.3	14.3	40.2	36.9	37.9	46.6	35.6	0.0
Incr Delay (d2), s/veh	6.7	3.6	0.1	4.7	0.6	0.4	0.2	0.8	4.4	21.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	12.3	0.2	5.7	4.2	1.3	1.5	4.1	4.7	4.3	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.8	27.9	15.5	42.2	16.9	14.7	40.4	37.7	42.3	67.9	35.8	0.0
LnGrp LOS	D	C	B	D	B	B	D	D	D	E	D	
Approach Vol, veh/h		2248			991			441			256	A
Approach Delay, s/veh		31.2			23.2			40.1			52.6	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.4	55.6		26.0	22.0	52.0		26.0
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 16	* 45		18.4	* 16	* 45		18.4
Max Q Clear Time (g_c+I1), s	11.7	13.1		13.3	9.8	34.5		20.4
Green Ext Time (p_c), s	0.2	2.3		0.4	0.0	5.7		0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	1739	14	237	579	96	60	168	178	123	112	132
Future Volume (veh/h)	316	1739	14	237	579	96	60	168	178	123	112	132
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	343	1890	15	258	629	104	65	183	193	134	122	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	412	2282	709	363	1716	765	233	344	292	168	344	
HCM 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
Prop Arrive On Green	0.12	0.45	0.45	0.15	0.48	0.48	0.18	0.18	0.18	0.18	0.18	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	49.8	27.9	15.5	42.2	16.9	14.7	40.4	37.7	42.3	67.9	35.8	0.0
Ln Grp LOS	D	C	B	D	B	B	D	D	D	E	D	
Approach Vol, veh/h		2248			991			441			256	
Approach Delay, s/veh		31.2			23.2			40.1			52.6	
Approach LOS		C			C			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	6	5		8
Case No	2.0	3.0		5.0	3.0	1.3		5.0
Phs Duration (G+Y+Rc), s	18.4	55.6		26.0	52.0	22.0		26.0
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 16	* 45		18.4	* 45	* 16		18.4
Max Allow Headway (MAH), s	2.5	3.5		2.7	3.6	1.3		3.2
Max Q Clear (g_c+I1), s	11.7	13.1		13.3	34.5	9.8		20.4
Green Ext Time (g_e), s	0.2	2.3		0.4	5.7	0.0		0.0
Prob of Phs Call (p_c)	1.00	1.00		1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.20	0.00		0.16	0.00	0.07		1.00

Left-Turn Movement Data								
Assigned Mvmt	1			7		5		3
Mvmt Sat Flow, veh/h	3456			1269		1781		1007

Through Movement Data								
Assigned Mvmt		2		4	6			8
Mvmt Sat Flow, veh/h		3554		1870	5106			1870

Right-Turn Movement Data								
Assigned Mvmt		12		14	16			18
Mvmt Sat Flow, veh/h		1585		1585	1585			1585

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	0	5	0	3
Lane Assignment	L (Prot)			L	L (Pr/Pm)			L

Lanes in Grp	2	0	0	1	0	1	0	1
Grp Vol (v), veh/h	343	0	0	65	0	258	0	134
Grp Sat Flow (s), veh/h/ln	1728	0	0	1269	0	1781	0	1007
Q Serve Time (g_s), s	9.7	0.0	0.0	4.7	0.0	7.8	0.0	9.6
Cycle Q Clear Time (g_c), s	9.7	0.0	0.0	10.4	0.0	7.8	0.0	18.4
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1269	0	236	0	1007
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	18.4	0.0	44.7	0.0	18.4
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	12.7	0.0	12.2	0.0	9.6
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	4.7	0.0	12.2	0.0	9.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	412	0	0	233	0	363	0	168
V/C Ratio (X)	0.83	0.00	0.00	0.28	0.00	0.71	0.00	0.80
Avail Cap (c_a), veh/h	536	0	0	233	0	384	0	168
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	43.1	0.0	0.0	40.2	0.0	37.5	0.0	46.6
Incr Delay (d2), s/veh	6.7	0.0	0.0	0.2	0.0	4.7	0.0	21.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	49.8	0.0	0.0	40.4	0.0	42.2	0.0	67.9
1st-Term Q (Q1), veh/ln	3.9	0.0	0.0	1.5	0.0	5.2	0.0	3.3
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.0	0.0	0.5	0.0	1.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	4.3	0.0	0.0	1.5	0.0	5.7	0.0	4.3
%ile Storage Ratio (RQ%)	0.25	0.00	0.00	0.23	0.00	0.53	0.00	0.48
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	629	0	183	1890	0	0	122
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	11.1	0.0	8.8	32.5	0.0	0.0	5.7
Cycle Q Clear Time (g_c), s	0.0	11.1	0.0	8.8	32.5	0.0	0.0	5.7
Lane Grp Cap (c), veh/h	0	1716	0	344	2282	0	0	344
V/C Ratio (X)	0.00	0.37	0.00	0.53	0.83	0.00	0.00	0.35
Avail Cap (c_a), veh/h	0	1716	0	344	2282	0	0	344
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.3	0.0	36.9	24.3	0.0	0.0	35.6
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.8	3.6	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.9	0.0	37.7	27.9	0.0	0.0	35.8
1st-Term Q (Q1), veh/ln	0.0	4.0	0.0	4.0	11.6	0.0	0.0	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.8	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.2	0.0	4.1	12.3	0.0	0.0	2.6
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.16	0.25	0.00	0.00	0.29
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	104	0	193	15	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	3.6	0.0	11.3	0.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.6	0.0	11.3	0.5	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	765	0	292	709	0	0	292
V/C Ratio (X)	0.00	0.14	0.00	0.66	0.02	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	765	0	292	709	0	0	292
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	14.3	0.0	37.9	15.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	4.4	0.1	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.7	0.0	42.3	15.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	4.3	0.2	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.3	0.0	4.7	0.2	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.75	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1605	310	232	538	1	322	17	209	121	179	478
Future Volume (veh/h)	19	1605	310	232	538	1	322	17	209	121	179	478
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	1745	337	252	585	1	350	18	227	132	195	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	506	1934	600	282	1365	609	413	513	229	195	263	
Arrive On Green	0.15	0.38	0.38	0.16	0.38	0.38	0.12	0.14	0.14	0.06	0.07	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	21	1745	337	252	585	1	350	18	227	132	195	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.5	32.3	9.8	13.9	12.1	0.0	9.9	0.4	14.3	3.7	5.4	0.0
Cycle Q Clear(g_c), s	0.5	32.3	9.8	13.9	12.1	0.0	9.9	0.4	14.3	3.7	5.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	506	1934	600	282	1365	609	413	513	229	195	263	
V/C Ratio(X)	0.04	0.90	0.56	0.89	0.43	0.00	0.85	0.04	0.99	0.68	0.74	
Avail Cap(c_a), veh/h	506	1934	600	287	1365	609	477	513	229	470	281	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.7	29.3	8.3	41.2	22.7	9.2	43.1	36.8	42.7	46.3	45.4	0.0
Incr Delay (d2), s/veh	0.0	7.4	3.8	26.5	1.0	0.0	10.6	0.0	57.3	1.5	8.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	13.2	3.7	7.8	4.8	0.0	4.8	0.2	9.2	1.6	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	36.7	12.1	67.8	23.7	9.2	53.7	36.8	100.0	47.8	53.4	0.0
LnGrp LOS	D	D	B	E	C	A	D	D	F	D	D	
Approach Vol, veh/h		2103			838			595			327	A
Approach Delay, s/veh		32.7			36.9			70.9			51.2	
Approach LOS		C			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	45.0	12.0	20.6	21.8	45.6	18.2	14.5
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 6.2	5.9	* 7.7	6.2	* 7.1
Max Green Setting (Gmax), s	12.3	* 38	13.6	* 8.9	16.1	* 37	13.8	* 7.9
Max Q Clear Time (g_c+I1), s	12.5	14.1	5.7	16.3	15.9	34.3	11.9	7.4
Green Ext Time (p_c), s	0.0	2.0	0.0	0.0	0.0	1.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1605	310	232	538	1	322	17	209	121	179	478
Future Volume (veh/h)	19	1605	310	232	538	1	322	17	209	121	179	478
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	1745	337	252	585	1	350	18	227	132	195	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	506	1934	600	282	1365	609	413	513	229	195	263	
HCM 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
Prop Arrive On Green	0.15	0.38	0.38	0.16	0.38	0.38	0.12	0.14	0.14	0.06	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	36.7	36.7	12.1	67.8	23.7	9.2	53.7	36.8	100.0	47.8	53.4	0.0
Ln Grp LOS	D	D	B	E	C	A	D	D	F	D	D	
Approach Vol, veh/h		2103			838			595			327	
Approach Delay, s/veh		32.7			36.9			70.9			51.2	
Approach LOS		C			D			E			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	3	4	5	6	8	7
Case No	3.0	2.0	2.0	3.0	2.0	3.0	3.0	2.0
Phs Duration (G+Y+Rc), s	45.0	22.3	12.0	20.6	21.8	45.6	14.5	18.2
Change Period (Y+Rc), s	* 6.6	7.7	6.4	* 6.2	5.9	* 7.7	* 7.1	6.2
Max Green (Gmax), s	* 38	12.3	13.6	* 8.9	16.1	* 37	* 7.9	13.8
Max Allow Headway (MAH), s	3.6	1.3	1.6	2.3	1.3	3.5	3.1	1.4
Max Q Clear (g_c+I1), s	14.1	2.5	5.7	16.3	15.9	34.3	7.4	11.9
Green Ext Time (g_e), s	2.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0
Prob of Phs Call (p_c)	1.00	0.44	0.97	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	1.00	0.00	1.00	0.29

Left-Turn Movement Data								
Assigned Mvmt		1	3		5			7
Mvmt Sat Flow, veh/h		3456	3456		1781			3456

Through Movement Data								
Assigned Mvmt	2			4		6	8	
Mvmt Sat Flow, veh/h	3554			3554		5106	3554	

Right-Turn Movement Data								
Assigned Mvmt	12			14		16	18	
Mvmt Sat Flow, veh/h	1585			1585		1585	1585	

Left Lane Group Data								
Assigned Mvmt	0	1	3	0	5	0	0	7
Lane Assignment		L (Prot)	L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	0	2	2	0	1	0	0	2
Grp Vol (v), veh/h	0	21	132	0	252	0	0	350
Grp Sat Flow (s), veh/h/ln	0	1728	1728	0	1781	0	0	1728
Q Serve Time (g_s), s	0.0	0.5	3.7	0.0	13.9	0.0	0.0	9.9
Cycle Q Clear Time (g_c), s	0.0	0.5	3.7	0.0	13.9	0.0	0.0	9.9
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	506	195	0	282	0	0	413
V/C Ratio (X)	0.00	0.04	0.68	0.00	0.89	0.00	0.00	0.85
Avail Cap (c_a), veh/h	0	506	470	0	287	0	0	477
Upstream Filter (I)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	36.7	46.3	0.0	41.2	0.0	0.0	43.1
Incr Delay (d2), s/veh	0.0	0.0	1.5	0.0	26.5	0.0	0.0	10.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	36.7	47.8	0.0	67.8	0.0	0.0	53.7
1st-Term Q (Q1), veh/ln	0.0	0.2	1.6	0.0	5.7	0.0	0.0	4.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	1.6	0.0	7.8	0.0	0.0	4.8
%ile Storage Ratio (RQ%)	0.00	0.02	0.18	0.00	0.88	0.00	0.00	0.47
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	8	0
Lane Assignment	T			T		T	T	
Lanes in Grp	2	0	0	2	0	3	2	0
Grp Vol (v), veh/h	585	0	0	18	0	1745	195	0
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	12.1	0.0	0.0	0.4	0.0	32.3	5.4	0.0
Cycle Q Clear Time (g_c), s	12.1	0.0	0.0	0.4	0.0	32.3	5.4	0.0
Lane Grp Cap (c), veh/h	1365	0	0	513	0	1934	263	0
V/C Ratio (X)	0.43	0.00	0.00	0.04	0.00	0.90	0.74	0.00
Avail Cap (c_a), veh/h	1365	0	0	513	0	1934	281	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	22.7	0.0	0.0	36.8	0.0	29.3	45.4	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.0	0.0	7.4	8.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	23.7	0.0	0.0	36.8	0.0	36.7	53.4	0.0
1st-Term Q (Q1), veh/ln	4.7	0.0	0.0	0.2	0.0	11.9	2.4	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.0	0.0	0.0	1.3	0.3	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	4.8	0.0	0.0	0.2	0.0	13.2	2.6	0.0
%ile Storage Ratio (RQ%)	0.12	0.00	0.00	0.01	0.00	0.68	0.09	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	18	0
Lane Assignment	R			R		R	R	
Lanes in Grp	1	0	0	1	0	1	1	0
Grp Vol (v), veh/h	1	0	0	227	0	337	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	1585	0
Q Serve Time (g_s), s	0.0	0.0	0.0	14.3	0.0	9.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	14.3	0.0	9.8	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	609	0	0	229	0	600	117	0
V/C Ratio (X)	0.00	0.00	0.00	0.99	0.00	0.56	0.00	0.00
Avail Cap (c_a), veh/h	609	0	0	229	0	600	125	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	9.2	0.0	0.0	42.7	0.0	8.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	57.3	0.0	3.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	9.2	0.0	0.0	100.0	0.0	12.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	5.5	0.0	3.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	3.6	0.0	0.6	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	9.2	0.0	3.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.90	0.00	0.42	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1195	185	171	702	305	185
Future Volume (veh/h)	1195	185	171	702	305	185
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1299	201	186	763	332	201
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2028	905	253	2551	501	230
Arrive On Green	0.57	0.57	0.07	0.72	0.15	0.15
Sat Flow, veh/h	3647	1585	3456	3647	3456	1585
Grp Volume(v), veh/h	1299	201	186	763	332	201
Grp Sat Flow(s),veh/h/ln	1777	1585	1728	1777	1728	1585
Q Serve(g_s), s	24.7	6.2	5.3	7.7	9.1	12.4
Cycle Q Clear(g_c), s	24.7	6.2	5.3	7.7	9.1	12.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2028	905	253	2551	501	230
V/C Ratio(X)	0.64	0.22	0.73	0.30	0.66	0.87
Avail Cap(c_a), veh/h	2028	905	435	2551	529	243
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	10.6	45.4	5.1	40.4	41.9
Incr Delay (d2), s/veh	1.6	0.6	1.6	0.3	2.2	25.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	2.0	2.2	2.1	4.0	12.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.1	11.1	46.9	5.4	42.6	67.5
LnGrp LOS	B	B	D	A	D	E
Approach Vol, veh/h	1500			949	533	
Approach Delay, s/veh	15.4			13.5	52.0	
Approach LOS	B			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		78.8		21.2	14.7	64.1
Change Period (Y+Rc), s		7.0		* 6.7	* 7.4	7.0
Max Green Setting (Gmax), s		71.0		* 15	* 13	51.0
Max Q Clear Time (g_c+I1), s		9.7		14.4	7.3	26.7
Green Ext Time (p_c), s		3.0		0.1	0.1	6.1

Intersection Summary	
HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1195	185	171	702	305	185
Future Volume (veh/h)	1195	185	171	702	305	185
Number	6	16	5	2	7	14
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1299	201	186	763	332	201
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence			Yes		Yes	
Cap, veh/h	2028	905	253	2551	501	230
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.57	0.57	0.07	0.72	0.15	0.15
Unsig. Movement Delay						
Ln Grp Delay, s/veh	16.1	11.1	46.9	5.4	42.6	67.5
Ln Grp LOS	B	B	D	A	D	E
Approach Vol, veh/h	1500			949	533	
Approach Delay, s/veh	15.4			13.5	52.0	
Approach LOS	B			B	D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Case No		4.0		9.0	2.0	7.0		
Phs Duration (G+Y+Rc), s		78.8		21.2	14.7	64.1		
Change Period (Y+Rc), s		7.0		* 6.7	* 7.4	7.0		
Max Green (Gmax), s		71.0		* 15	* 13	51.0		
Max Allow Headway (MAH), s		3.7		2.2	2.2	3.6		
Max Q Clear (g_c+I1), s		9.7		14.4	7.3	26.7		
Green Ext Time (g_e), s		3.0		0.1	0.1	6.1		
Prob of Phs Call (p_c)		1.00		1.00	0.99	1.00		
Prob of Max Out (p_x)		0.00		1.00	0.00	0.00		
Left-Turn Movement Data								
Assigned Mvmt				7	5	1		
Mvmt Sat Flow, veh/h				3456	3456	0		
Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		3647		0		3647		
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		0		1585		1585		
Left Lane Group Data								
Assigned Mvmt	0	0	0	7	5	1	0	0
Lane Assignment				L	L (Prot)			

Lanes in Grp	0	0	0	2	2	0	0	0
Grp Vol (v), veh/h	0	0	0	332	186	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1728	1728	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	9.1	5.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	9.1	5.3	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1728	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	57.1	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	501	253	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.66	0.73	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	529	435	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	40.4	45.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.2	1.6	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	42.6	46.9	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.9	2.2	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	4.0	2.2	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.39	0.23	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	763	0	0	0	1299	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	7.7	0.0	0.0	0.0	24.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.7	0.0	0.0	0.0	24.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	2551	0	0	0	2028	0	0
V/C Ratio (X)	0.00	0.30	0.00	0.00	0.00	0.64	0.00	0.00
Avail Cap (c_a), veh/h	0	2551	0	0	0	2028	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	5.1	0.0	0.0	0.0	14.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	1.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.4	0.0	0.0	0.0	16.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.0	0.0	0.0	0.0	8.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.4	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	0.0	0.0	8.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.21	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	201	0	201	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1585	0	1585	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	12.4	0.0	6.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	12.4	0.0	6.2	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	230	0	905	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.87	0.00	0.22	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	243	0	905	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	41.9	0.0	10.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	25.6	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	67.5	0.0	11.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	10.4	0.0	1.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	1.6	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	12.0	0.0	2.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	1.18	0.00	0.10	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	0	962	45	72	83
Future Volume (veh/h)	24	0	962	45	72	83
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	0	1046	49	78	90
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	427	0	2553	1139	135	120
Arrive On Green	0.03	0.00	0.72	0.72	0.08	0.08
Sat Flow, veh/h	1781	26	3647	1585	1781	1585
Grp Volume(v), veh/h	26	4.1	1046	49	78	90
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	0.4		11.7	0.9	4.2	5.6
Cycle Q Clear(g_c), s	0.4		11.7	0.9	4.2	5.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	427		2553	1139	135	120
V/C Ratio(X)	0.06		0.41	0.04	0.58	0.75
Avail Cap(c_a), veh/h	577		2553	1139	267	238
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.0		5.6	4.1	44.7	45.3
Incr Delay (d2), s/veh	0.0		0.5	0.1	1.4	3.5
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1		3.2	0.2	1.9	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.1		6.1	4.2	46.1	48.7
LnGrp LOS	A		A	A	D	D
Approach Vol, veh/h			1095		168	
Approach Delay, s/veh			6.0		47.5	
Approach LOS			A		D	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	8.6	77.8				13.6
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	11.0	56.0				15.0
Max Q Clear Time (g_c+I1), s	2.4	13.7				7.6
Green Ext Time (p_c), s	0.0	3.5				0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.4
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	0	962	45	72	83
Future Volume (veh/h)	24	0	962	45	72	83
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	0	1046	49	78	90
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	427	0	2553	1139	135	120
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.03	0.00	0.72	0.72	0.08	0.08
Unsig. Movement Delay						
Ln Grp Delay, s/veh	4.1	0.0	6.1	4.2	46.1	48.7
Ln Grp LOS	A	A	A	A	D	D
Approach Vol, veh/h		26	1095		168	
Approach Delay, s/veh		4.1	6.0		47.5	
Approach LOS		A	A		D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	8.6	77.8	13.6					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	11.0	56.0	15.0					
Max Allow Headway (MAH), s	2.2	3.3	2.4					
Max Q Clear (g_c+I1), s	2.4	13.7	7.6					
Green Ext Time (g_e), s	0.0	3.5	0.1					
Prob of Phs Call (p_c)	0.51	1.00	0.99					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	26	0	78	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	0.4	0.0	4.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.4	0.0	4.2	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	515	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	71.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	60.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	71.8	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	427	0	135	0	0	0	0	0
V/C Ratio (X)	0.06	0.00	0.58	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	577	0	267	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	4.0	0.0	44.7	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	4.1	0.0	46.1	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.1	0.0	1.9	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.1	0.0	1.9	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.01	0.00	0.11	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1046	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	11.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	11.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2553	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2553	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	49	90	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.9	5.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.9	5.6	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1139	120	0	0	0	0	0
V/C Ratio (X)	0.00	0.04	0.75	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1139	238	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.1	45.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	3.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.2	48.7	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	2.2	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.2	2.3	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.13	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		11.4						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	33	49	1	1	14	53	2	0	73	8
Future Vol, veh/h	6	2	33	49	1	1	14	53	2	0	73	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	2	36	53	1	1	15	58	2	0	79	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	144	174	44	130	177	30	88	0	0	60	0	0
Stage 1	84	84	-	89	89	-	-	-	-	-	-	-
Stage 2	60	90	-	41	88	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	811	718	1017	830	716	1038	1506	-	-	1542	-	-
Stage 1	915	824	-	908	820	-	-	-	-	-	-	-
Stage 2	944	820	-	968	821	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	803	711	1017	793	709	1038	1506	-	-	1542	-	-
Mov Cap-2 Maneuver	803	711	-	793	709	-	-	-	-	-	-	-
Stage 1	906	824	-	899	812	-	-	-	-	-	-	-
Stage 2	932	812	-	931	821	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	9.9	1.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1506	-	-	803	993	793	843	1542	-	-
HCM Lane V/C Ratio	0.01	-	-	0.008	0.038	0.067	0.003	-	-	-
HCM Control Delay (s)	7.4	-	-	9.5	8.8	9.9	9.3	0	-	-
HCM Lane LOS	A	-	-	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.2	0	0	-	-

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	52	8	20	0	1	61
Future Vol, veh/h	52	8	20	0	1	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	9	22	0	1	66

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	22	0	-	0	141	11
Stage 1	-	-	-	-	22	-
Stage 2	-	-	-	-	119	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1592	-	-	-	838	1067
Stage 1	-	-	-	-	998	-
Stage 2	-	-	-	-	893	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1592	-	-	-	808	1067
Mov Cap-2 Maneuver	-	-	-	-	808	-
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	893	-

Approach	EB	WB	SB
HCM Control Delay, s	6.4	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1592	-	-	-	1062
HCM Lane V/C Ratio	0.036	-	-	-	0.063
HCM Control Delay (s)	7.3	-	-	-	8.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1	9	36	2	1	6	22	24	0	17	1
Future Vol, veh/h	8	1	9	36	2	1	6	22	24	0	17	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	1	10	39	2	1	7	24	26	0	18	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	72	83	19	75	70	37	19	0	0	50	0	0
Stage 1	19	19	-	51	51	-	-	-	-	-	-	-
Stage 2	53	64	-	24	19	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	919	807	1059	915	821	1035	1597	-	-	1557	-	-
Stage 1	1000	880	-	962	852	-	-	-	-	-	-	-
Stage 2	960	842	-	994	880	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	913	803	1059	902	817	1035	1597	-	-	1557	-	-
Mov Cap-2 Maneuver	913	803	-	902	817	-	-	-	-	-	-	-
Stage 1	995	880	-	957	848	-	-	-	-	-	-	-
Stage 2	952	838	-	984	880	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	9.2	0.8	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1597	-	-	973	900	1557	-	-
HCM Lane V/C Ratio	0.004	-	-	0.02	0.047	-	-	-
HCM Control Delay (s)	7.3	0	-	8.8	9.2	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	7	162	21	2	331
Future Vol, veh/h	35	7	162	21	2	331
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	8	176	23	2	360

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	552	188	0	0	199	0
Stage 1	188	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	495	854	-	-	1373	-
Stage 1	844	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	495	854	-	-	1373	-
Mov Cap-2 Maneuver	495	-	-	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	702	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	532	1373	-
HCM Lane V/C Ratio	-	-	0.086	0.002	-
HCM Control Delay (s)	-	-	12.4	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	141	0	82	0	106	12	136	221	3
Future Volume (veh/h)	0	0	0	141	0	82	0	106	12	136	221	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	153	0	89	0	115	13	148	240	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	275	296	0	557	0	251	275	631	71	700	705	9
Arrive On Green	0.00	0.00	0.00	0.16	0.00	0.16	0.00	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1308	1870	0	1781	0	1585	1137	1650	187	1262	1843	23
Grp Volume(v), veh/h	0	0	0	153	0	89	0	0	128	148	0	243
Grp Sat Flow(s),veh/h/ln	1308	1870	0	1781	0	1585	1137	0	1837	1262	0	1866
Q Serve(g_s), s	0.0	0.0	0.0	2.1	0.0	1.3	0.0	0.0	1.2	2.3	0.0	2.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.1	0.0	1.3	0.0	0.0	1.2	3.5	0.0	2.4
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.10	1.00		0.01
Lane Grp Cap(c), veh/h	275	296	0	557	0	251	275	0	703	700	0	714
V/C Ratio(X)	0.00	0.00	0.00	0.27	0.00	0.35	0.00	0.00	0.18	0.21	0.00	0.34
Avail Cap(c_a), veh/h	1219	1646	0	1843	0	1395	928	0	1757	1425	0	1785
HCM 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
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	10.1	0.0	9.8	0.0	0.0	5.4	6.5	0.0	5.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.6	0.0	0.3	0.0	0.0	0.2	0.3	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	10.2	0.0	10.1	0.0	0.0	5.4	6.6	0.0	5.8
LnGrp LOS	A	A	A	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		0			242			128			391	
Approach Delay, s/veh		0.0			10.2			5.4			6.1	
Approach LOS					B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	16.0	10.1	16.0	10.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	25.0	23.0	25.0	23.0
Max Q Clear Time (g_c+I1), s	3.2	0.0	5.5	4.1
Green Ext Time (p_c), s	0.3	0.0	0.8	0.3

Intersection Summary	
HCM 6th Ctrl Delay	7.3
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	141	0	82	0	106	12	136	221	3
Future Volume (veh/h)	0	0	0	141	0	82	0	106	12	136	221	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	153	0	89	0	115	13	148	240	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	275	296	0	557	0	251	275	631	71	700	705	9
HCM 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
Prop Arrive On Green	0.00	0.00	0.00	0.16	0.00	0.16	0.00	0.38	0.38	0.38	0.38	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	10.2	0.0	10.1	0.0	0.0	5.4	6.6	0.0	5.8
Ln Grp LOS	A	A	A	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		0			242			128			391	
Approach Delay, s/veh		0.0			10.2			5.4			6.1	
Approach LOS					B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		16.0		10.1		16.0		10.1
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		25.0		23.0		25.0		23.0
Max Allow Headway (MAH), s		3.8		0.0		3.3		2.9
Max Q Clear (g_c+I1), s		3.2		0.0		5.5		4.1
Green Ext Time (g_e), s		0.3		0.0		0.8		0.3
Prob of Phs Call (p_c)		1.00		0.00		1.00		0.83
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1137		1308		1262		1781
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1650		1870		1843		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		187		0		23		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	148	0	153
Grp Sat Flow (s), veh/h/ln	0	1137	0	1308	0	1262	0	1781
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	2.3	0.0	2.1
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	3.5	0.0	2.1
Perm LT Sat Flow (s_l), veh/h/ln	0	1137	0	1308	0	1262	0	1781
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	10.0	0.0	4.1
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	8.8	0.0	4.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	2.3	0.0	2.1
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	275	0	275	0	700	0	557
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.27
Avail Cap (c_a), veh/h	0	928	0	1219	0	1425	0	1843
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	6.5	0.0	10.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	6.6	0.0	10.2
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment				T				
Lanes in Grp	0	0	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1870	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	296	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	1646	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R				T+R		T+R
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	128	0	0	0	243	0	89
Grp Sat Flow (s), veh/h/ln	0	1837	0	0	0	1866	0	1585
Q Serve Time (g_s), s	0.0	1.2	0.0	0.0	0.0	2.4	0.0	1.3
Cycle Q Clear Time (g_c), s	0.0	1.2	0.0	0.0	0.0	2.4	0.0	1.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.10	0.00	0.00	0.00	0.01	0.00	1.00
Lane Grp Cap (c), veh/h	0	703	0	0	0	714	0	251
V/C Ratio (X)	0.00	0.18	0.00	0.00	0.00	0.34	0.00	0.35
Avail Cap (c_a), veh/h	0	1757	0	0	0	1785	0	1395
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	5.4	0.0	0.0	0.0	5.7	0.0	9.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.4	0.0	0.0	0.0	5.8	0.0	10.1
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.0	0.0	0.4	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		7.3						
HCM 6th LOS		A						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	845	4	169	520	53	21	59	68	77	81	130
Future Volume (veh/h)	171	845	4	169	520	53	21	59	68	77	81	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	918	4	184	565	58	23	64	74	84	88	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	1976	613	711	2109	940	170	222	188	181	222	
Arrive On Green	0.07	0.39	0.39	0.27	0.59	0.59	0.12	0.12	0.12	0.12	0.12	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1309	1870	1585	1251	1870	1585
Grp Volume(v), veh/h	186	918	4	184	565	58	23	64	74	84	88	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1309	1870	1585	1251	1870	1585
Q Serve(g_s), s	5.3	13.4	0.2	0.0	7.7	1.5	1.7	3.1	4.3	6.6	4.4	0.0
Cycle Q Clear(g_c), s	5.3	13.4	0.2	0.0	7.7	1.5	6.0	3.1	4.3	9.7	4.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	1976	613	711	2109	940	170	222	188	181	222	
V/C Ratio(X)	0.73	0.46	0.01	0.26	0.27	0.06	0.14	0.29	0.39	0.46	0.40	
Avail Cap(c_a), veh/h	674	1976	613	711	2109	940	282	382	323	288	382	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.3	22.9	18.8	16.2	9.8	8.6	43.6	40.2	40.8	44.7	40.8	0.0
Incr Delay (d2), s/veh	1.5	0.8	0.0	0.1	0.3	0.1	0.1	0.3	0.5	0.7	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	5.1	0.1	2.5	2.6	0.5	0.5	1.4	1.7	2.1	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	23.7	18.9	16.3	10.1	8.7	43.7	40.5	41.3	45.3	41.2	0.0
LnGrp LOS	D	C	B	B	B	A	D	D	D	D	D	
Approach Vol, veh/h		1108			807			161			172	A
Approach Delay, s/veh		27.5			11.4			41.3			43.2	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.9	66.6		19.4	34.6	46.0		19.4
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 20	* 39		20.4	* 20	* 39		20.4
Max Q Clear Time (g_c+I1), s	7.3	9.7		8.0	2.0	15.4		11.7
Green Ext Time (p_c), s	0.2	2.0		0.1	0.0	3.4		0.2

Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	845	4	169	520	53	21	59	68	77	81	130
Future Volume (veh/h)	171	845	4	169	520	53	21	59	68	77	81	130
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	918	4	184	565	58	23	64	74	84	88	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	256	1976	613	711	2109	940	170	222	188	181	222	
HCM 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
Prop Arrive On Green	0.07	0.39	0.39	0.27	0.59	0.59	0.12	0.12	0.12	0.12	0.12	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	46.8	23.7	18.9	16.3	10.1	8.7	43.7	40.5	41.3	45.3	41.2	0.0
Ln Grp LOS	D	C	B	B	B	A	D	D	D	D	D	
Approach Vol, veh/h		1108			807			161			172	
Approach Delay, s/veh		27.5			11.4			41.3			43.2	
Approach LOS		C			B			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	6	5		8
Case No	2.0	3.0		5.0	3.0	1.3		5.0
Phs Duration (G+Y+Rc), s	13.9	66.6		19.4	46.0	34.6		19.4
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 20	* 39		20.4	* 39	* 20		20.4
Max Allow Headway (MAH), s	2.5	3.5		2.7	3.6	1.3		2.9
Max Q Clear (g_c+I1), s	7.3	9.7		8.0	15.4	2.0		11.7
Green Ext Time (g_e), s	0.2	2.0		0.1	3.4	0.0		0.2
Prob of Phs Call (p_c)	0.99	1.00		1.00	1.00	0.99		1.00
Prob of Max Out (p_x)	0.00	0.00		0.00	0.00	0.00		0.00

Left-Turn Movement Data				
Assigned Mvmt	1	7	5	3
Mvmt Sat Flow, veh/h	3456	1309	1781	1251

Through Movement Data				
Assigned Mvmt	2	4	6	8
Mvmt Sat Flow, veh/h	3554	1870	5106	1870

Right-Turn Movement Data				
Assigned Mvmt	12	14	16	18
Mvmt Sat Flow, veh/h	1585	1585	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	0	5	0	3
Lane Assignment	L (Prot)			L	L (Pr/Pm)			L

Lanes in Grp	2	0	0	1	0	1	0	1
Grp Vol (v), veh/h	186	0	0	23	0	184	0	84
Grp Sat Flow (s), veh/h/ln	1728	0	0	1309	0	1781	0	1251
Q Serve Time (g_s), s	5.3	0.0	0.0	1.7	0.0	0.0	0.0	6.6
Cycle Q Clear Time (g_c), s	5.3	0.0	0.0	6.0	0.0	0.0	0.0	9.7
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1309	0	606	0	1251
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	11.8	0.0	38.7	0.0	11.8
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	7.5	0.0	25.3	0.0	8.7
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	1.7	0.0	20.7	0.0	6.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	256	0	0	170	0	711	0	181
V/C Ratio (X)	0.73	0.00	0.00	0.14	0.00	0.26	0.00	0.46
Avail Cap (c_a), veh/h	674	0	0	282	0	711	0	288
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	45.3	0.0	0.0	43.6	0.0	16.2	0.0	44.7
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.1	0.0	0.1	0.0	0.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	46.8	0.0	0.0	43.7	0.0	16.3	0.0	45.3
1st-Term Q (Q1), veh/ln	2.2	0.0	0.0	0.5	0.0	2.5	0.0	2.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	2.2	0.0	0.0	0.5	0.0	2.5	0.0	2.1
%ile Storage Ratio (RQ%)	0.13	0.00	0.00	0.09	0.00	0.23	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	565	0	64	918	0	0	88
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	7.7	0.0	3.1	13.4	0.0	0.0	4.4
Cycle Q Clear Time (g_c), s	0.0	7.7	0.0	3.1	13.4	0.0	0.0	4.4
Lane Grp Cap (c), veh/h	0	2109	0	222	1976	0	0	222
V/C Ratio (X)	0.00	0.27	0.00	0.29	0.46	0.00	0.00	0.40
Avail Cap (c_a), veh/h	0	2109	0	382	1976	0	0	382
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.8	0.0	40.2	22.9	0.0	0.0	40.8
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.3	0.8	0.0	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.1	0.0	40.5	23.7	0.0	0.0	41.2
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	1.4	4.9	0.0	0.0	2.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.6	0.0	1.4	5.1	0.0	0.0	2.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.06	0.10	0.00	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	58	0	74	4	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	1.5	0.0	4.3	0.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.5	0.0	4.3	0.2	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	940	0	188	613	0	0	188
V/C Ratio (X)	0.00	0.06	0.00	0.39	0.01	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	940	0	323	613	0	0	323
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.6	0.0	40.8	18.8	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.7	0.0	41.3	18.9	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	1.7	0.1	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	1.7	0.1	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.27	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	765	254	136	508	319	149
Future Volume (veh/h)	765	254	136	508	319	149
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	832	276	148	552	347	162
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2139	954	214	2622	429	197
Arrive On Green	0.60	0.60	0.06	0.74	0.12	0.12
Sat Flow, veh/h	3647	1585	3456	3647	3456	1585
Grp Volume(v), veh/h	832	276	148	552	347	162
Grp Sat Flow(s),veh/h/ln	1777	1585	1728	1777	1728	1585
Q Serve(g_s), s	12.2	8.4	4.2	4.8	9.8	10.0
Cycle Q Clear(g_c), s	12.2	8.4	4.2	4.8	9.8	10.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2139	954	214	2622	429	197
V/C Ratio(X)	0.39	0.29	0.69	0.21	0.81	0.82
Avail Cap(c_a), veh/h	2139	954	505	2622	736	338
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	9.6	46.0	4.1	42.6	42.7
Incr Delay (d2), s/veh	0.5	0.8	1.5	0.2	1.4	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	2.6	1.8	1.2	4.3	8.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.9	10.4	47.5	4.2	44.0	46.0
LnGrp LOS	B	B	D	A	D	D
Approach Vol, veh/h	1108			700	509	
Approach Delay, s/veh	10.7			13.4	44.7	
Approach LOS	B			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		80.9		19.1	13.6	67.3
Change Period (Y+Rc), s		* 7.1		* 6.7	* 7.4	7.1
Max Green Setting (Gmax), s		* 65		* 21	* 15	42.9
Max Q Clear Time (g_c+I1), s		6.8		12.0	6.2	14.2
Green Ext Time (p_c), s		2.0		0.4	0.1	3.7

Intersection Summary	
HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	765	254	136	508	319	149
Future Volume (veh/h)	765	254	136	508	319	149
Number	6	16	5	2	7	14
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	832	276	148	552	347	162
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence			Yes		Yes	
Cap, veh/h	2139	954	214	2622	429	197
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.60	0.60	0.06	0.74	0.12	0.12
Unsig. Movement Delay						
Ln Grp Delay, s/veh	10.9	10.4	47.5	4.2	44.0	46.0
Ln Grp LOS	B	B	D	A	D	D
Approach Vol, veh/h	1108			700	509	
Approach Delay, s/veh	10.7			13.4	44.7	
Approach LOS	B			B	D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Case No		4.0		9.0	2.0	7.0		
Phs Duration (G+Y+Rc), s		80.9		19.1	13.6	67.3		
Change Period (Y+Rc), s		* 7.1		* 6.7	* 7.4	7.1		
Max Green (Gmax), s		* 65		* 21	* 15	42.9		
Max Allow Headway (MAH), s		3.7		2.2	2.2	3.5		
Max Q Clear (g_c+I1), s		6.8		12.0	6.2	14.2		
Green Ext Time (g_e), s		2.0		0.4	0.1	3.7		
Prob of Phs Call (p_c)		1.00		1.00	0.98	1.00		
Prob of Max Out (p_x)		0.00		0.00	0.00	0.00		
Left-Turn Movement Data								
Assigned Mvmt				7	5	1		
Mvmt Sat Flow, veh/h				3456	3456	0		
Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		3647		0		3647		
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		0		1585		1585		
Left Lane Group Data								
Assigned Mvmt	0	0	0	7	5	1	0	0
Lane Assignment				L	L (Prot)			

Lanes in Grp	0	0	0	2	2	0	0	0
Grp Vol (v), veh/h	0	0	0	347	148	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1728	1728	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	9.8	4.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	9.8	4.2	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1728	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	60.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	429	214	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.81	0.69	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	736	505	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	42.6	46.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.4	1.5	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	44.0	47.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	4.2	1.7	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	4.3	1.8	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.42	0.18	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	552	0	0	0	832	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	4.8	0.0	0.0	0.0	12.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.8	0.0	0.0	0.0	12.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	2622	0	0	0	2139	0	0
V/C Ratio (X)	0.00	0.21	0.00	0.00	0.00	0.39	0.00	0.00
Avail Cap (c_a), veh/h	0	2622	0	0	0	2139	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.1	0.0	0.0	0.0	10.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.2	0.0	0.0	0.0	10.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	0.0	0.0	4.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	0.0	0.0	4.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.10	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	162	0	276	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1585	0	1585	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	10.0	0.0	8.4	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	10.0	0.0	8.4	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	197	0	954	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.82	0.00	0.29	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	338	0	954	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	42.7	0.0	9.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.3	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	46.0	0.0	10.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	8.4	0.0	2.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	8.6	0.0	2.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.85	0.00	0.13	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	72	0	776	51	89	70
Future Volume (veh/h)	72	0	776	51	89	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	0	843	55	97	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	529	0	2494	1112	132	117
Arrive On Green	0.04	0.00	0.70	0.70	0.07	0.07
Sat Flow, veh/h	1781	78	3647	1585	1781	1585
Grp Volume(v), veh/h	78	3.9	843	55	97	76
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	1.2		9.3	1.1	5.3	4.7
Cycle Q Clear(g_c), s	1.2		9.3	1.1	5.3	4.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	529		2494	1112	132	117
V/C Ratio(X)	0.15		0.34	0.05	0.74	0.65
Avail Cap(c_a), veh/h	681		2494	1112	321	285
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.9		5.8	4.6	45.4	45.0
Incr Delay (d2), s/veh	0.0		0.4	0.1	3.0	2.2
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3		2.6	0.3	2.5	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.9		6.2	4.7	48.3	47.3
LnGrp LOS	A		A	A	D	D
Approach Vol, veh/h			898		173	
Approach Delay, s/veh			6.1		47.9	
Approach LOS			A		D	

Timer - Assigned Phs	1	2	8
Phs Duration (G+Y+Rc), s	10.4	76.2	13.4
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	13.0	51.0	18.0
Max Q Clear Time (g_c+I1), s	11.3	11.3	7.3
Green Ext Time (p_c), s	0.0	2.6	0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	72	0	776	51	89	70
Future Volume (veh/h)	72	0	776	51	89	70
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	0	843	55	97	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	529	0	2494	1112	132	117
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.00	0.70	0.70	0.07	0.07
Unsig. Movement Delay						
Ln Grp Delay, s/veh	3.9	0.0	6.2	4.7	48.3	47.3
Ln Grp LOS	A	A	A	A	D	D
Approach Vol, veh/h		78	898		173	
Approach Delay, s/veh		3.9	6.1		47.9	
Approach LOS		A	A		D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	10.4	76.2	13.4					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	51.0	18.0					
Max Allow Headway (MAH), s	2.2	3.3	2.4					
Max Q Clear (g_c+I1), s	3.2	11.3	7.3					
Green Ext Time (g_e), s	0.0	2.6	0.1					
Prob of Phs Call (p_c)	0.89	1.00	0.99					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	78	0	97	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	1.2	0.0	5.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.2	0.0	5.3	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	620	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	70.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	60.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	70.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	529	0	132	0	0	0	0	0
V/C Ratio (X)	0.15	0.00	0.74	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	681	0	321	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	3.9	0.0	45.4	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	3.9	0.0	48.3	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.3	0.0	2.3	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.3	0.0	2.5	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.03	0.00	0.14	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	843	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2494	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2494	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	55	76	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	1.1	4.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.1	4.7	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1112	117	0	0	0	0	0
V/C Ratio (X)	0.00	0.05	0.65	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1112	285	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.6	45.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	2.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.7	47.3	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.3	1.8	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.3	1.9	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.07	0.11	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		12.2						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	3	35	4	0	0	4	106	12	0	119	39
Future Vol, veh/h	59	3	35	4	0	0	4	106	12	0	119	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	3	38	4	0	0	4	115	13	0	129	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	216	286	86	196	301	64	171	0	0	128	0	0
Stage 1	150	150	-	130	130	-	-	-	-	-	-	-
Stage 2	66	136	-	66	171	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	722	622	956	745	610	987	1404	-	-	1456	-	-
Stage 1	837	772	-	860	788	-	-	-	-	-	-	-
Stage 2	937	783	-	937	756	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	721	620	956	711	608	987	1404	-	-	1456	-	-
Mov Cap-2 Maneuver	721	620	-	711	608	-	-	-	-	-	-	-
Stage 1	834	772	-	857	786	-	-	-	-	-	-	-
Stage 2	934	781	-	896	756	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	10.1	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1404	-	-	721	917	711	-	1456	-	-
HCM Lane V/C Ratio	0.003	-	-	0.089	0.045	0.006	-	-	-	-
HCM Control Delay (s)	7.6	-	-	10.5	9.1	10.1	0	0	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0	-	0	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	144	21	14	0	0	144
Future Vol, veh/h	144	21	14	0	0	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	157	23	15	0	0	157

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	15	0	-	0	341	8
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	326	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1601	-	-	-	629	1072
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	704	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1601	-	-	-	567	1072
Mov Cap-2 Maneuver	-	-	-	-	567	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	704	-

Approach	EB	WB	SB
HCM Control Delay, s	6.5	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1601	-	-	-	1072
HCM Lane V/C Ratio	0.098	-	-	-	0.146
HCM Control Delay (s)	7.5	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	23	1	0	4	11	11	0	13	2
Future Vol, veh/h	0	0	11	23	1	0	4	11	11	0	13	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	25	1	0	4	12	12	0	14	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	42	47	15	47	42	18	16	0	0	24	0	0
Stage 1	15	15	-	26	26	-	-	-	-	-	-	-
Stage 2	27	32	-	21	16	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	961	845	1065	954	850	1061	1602	-	-	1591	-	-
Stage 1	1005	883	-	992	874	-	-	-	-	-	-	-
Stage 2	990	868	-	998	882	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	958	842	1065	942	847	1061	1602	-	-	1591	-	-
Mov Cap-2 Maneuver	958	842	-	942	847	-	-	-	-	-	-	-
Stage 1	1002	883	-	989	871	-	-	-	-	-	-	-
Stage 2	986	865	-	987	882	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	8.9	1.1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1602	-	-	1065	938	1591	-	-
HCM Lane V/C Ratio	0.003	-	-	0.011	0.028	-	-	-
HCM Control Delay (s)	7.3	0	-	8.4	8.9	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	11	303	51	7	328
Future Vol, veh/h	33	11	303	51	7	328
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	12	329	55	8	357

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	730	357	0	0	384	0
Stage 1	357	-	-	-	-	-
Stage 2	373	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	389	687	-	-	1174	-
Stage 1	708	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	386	687	-	-	1174	-
Mov Cap-2 Maneuver	386	-	-	-	-	-
Stage 1	708	-	-	-	-	-
Stage 2	691	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	433	1174	-
HCM Lane V/C Ratio	-	-	0.11	0.006	-
HCM Control Delay (s)	-	-	14.3	8.1	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	145	0	92	0	272	167	119	246	0
Future Volume (veh/h)	0	0	0	145	0	92	0	272	167	119	246	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	158	0	100	0	296	182	129	267	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	281	0	514	0	238	246	476	293	456	822	0
Arrive On Green	0.00	0.00	0.00	0.15	0.00	0.15	0.00	0.44	0.44	0.44	0.44	0.00
Sat Flow, veh/h	1295	1870	0	1781	0	1585	1112	1084	666	916	1870	0
Grp Volume(v), veh/h	0	0	0	158	0	100	0	0	478	129	267	0
Grp Sat Flow(s),veh/h/ln	1295	1870	0	1781	0	1585	1112	0	1750	916	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	2.4	0.0	1.7	0.0	0.0	6.2	3.7	2.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.4	0.0	1.7	0.0	0.0	6.2	9.8	2.7	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.38	1.00		0.00
Lane Grp Cap(c), veh/h	246	281	0	514	0	238	246	0	769	456	822	0
V/C Ratio(X)	0.00	0.00	0.00	0.31	0.00	0.42	0.00	0.00	0.62	0.28	0.32	0.00
Avail Cap(c_a), veh/h	983	1344	0	1527	0	1139	786	0	1617	900	1728	0
HCM 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
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	11.6	0.0	11.3	0.0	0.0	6.3	10.1	5.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.0	0.3	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.5	0.0	0.0	1.2	0.5	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	11.7	0.0	11.7	0.0	0.0	6.6	10.2	5.4	0.0
LnGrp LOS	A	A	A	B	A	B	A	A	A	B	A	A
Approach Vol, veh/h		0			258			478			396	
Approach Delay, s/veh		0.0			11.7			6.6			7.0	
Approach LOS					B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	18.8	10.4	18.8	10.4
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	27.0	21.0	27.0	21.0
Max Q Clear Time (g_c+I1), s	8.2	0.0	11.8	4.4
Green Ext Time (p_c), s	1.5	0.0	1.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	1739	14	237	579	96	60	168	178	123	112	132
Future Volume (veh/h)	316	1739	14	237	579	96	60	168	178	123	112	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	343	1890	15	258	629	104	65	183	193	134	122	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	412	2282	709	363	1716	765	233	344	292	168	344	
Arrive On Green	0.12	0.45	0.45	0.15	0.48	0.48	0.18	0.18	0.18	0.18	0.18	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1269	1870	1585	1007	1870	1585
Grp Volume(v), veh/h	343	1890	15	258	629	104	65	183	193	134	122	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1269	1870	1585	1007	1870	1585
Q Serve(g_s), s	9.7	32.5	0.5	7.8	11.1	3.6	4.7	8.8	11.3	9.6	5.7	0.0
Cycle Q Clear(g_c), s	9.7	32.5	0.5	7.8	11.1	3.6	10.4	8.8	11.3	18.4	5.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	412	2282	709	363	1716	765	233	344	292	168	344	
V/C Ratio(X)	0.83	0.83	0.02	0.71	0.37	0.14	0.28	0.53	0.66	0.80	0.35	
Avail Cap(c_a), veh/h	536	2282	709	384	1716	765	233	344	292	168	344	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.1	24.3	15.4	37.5	16.3	14.3	40.2	36.9	37.9	46.6	35.6	0.0
Incr Delay (d2), s/veh	6.7	3.6	0.1	4.7	0.6	0.4	0.2	0.8	4.4	21.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	12.3	0.2	5.7	4.2	1.3	1.5	4.1	4.7	4.3	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.8	27.9	15.5	42.2	16.9	14.7	40.4	37.7	42.3	67.9	35.8	0.0
LnGrp LOS	D	C	B	D	B	B	D	D	D	E	D	
Approach Vol, veh/h		2248			991			441			256	A
Approach Delay, s/veh		31.2			23.2			40.1			52.6	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.4	55.6		26.0	22.0	52.0		26.0
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 16	* 45		18.4	* 16	* 45		18.4
Max Q Clear Time (g_c+I1), s	11.7	13.1		13.3	9.8	34.5		20.4
Green Ext Time (p_c), s	0.2	2.3		0.4	0.0	5.7		0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1605	310	232	538	1	322	17	209	121	179	478
Future Volume (veh/h)	19	1605	310	232	538	1	322	17	209	121	179	478
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	1745	337	252	585	1	350	18	227	132	195	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	506	1934	600	282	1365	609	413	513	229	195	263	
Arrive On Green	0.15	0.38	0.38	0.16	0.38	0.38	0.12	0.14	0.14	0.06	0.07	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	21	1745	337	252	585	1	350	18	227	132	195	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.5	32.3	9.8	13.9	12.1	0.0	9.9	0.4	14.3	3.7	5.4	0.0
Cycle Q Clear(g_c), s	0.5	32.3	9.8	13.9	12.1	0.0	9.9	0.4	14.3	3.7	5.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	506	1934	600	282	1365	609	413	513	229	195	263	
V/C Ratio(X)	0.04	0.90	0.56	0.89	0.43	0.00	0.85	0.04	0.99	0.68	0.74	
Avail Cap(c_a), veh/h	506	1934	600	287	1365	609	477	513	229	470	281	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.7	29.3	8.3	41.2	22.7	9.2	43.1	36.8	42.7	46.3	45.4	0.0
Incr Delay (d2), s/veh	0.0	7.4	3.8	26.5	1.0	0.0	10.6	0.0	57.3	1.5	8.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	13.2	3.7	7.8	4.8	0.0	4.8	0.2	9.2	1.6	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	36.7	12.1	67.8	23.7	9.2	53.7	36.8	100.0	47.8	53.4	0.0
LnGrp LOS	D	D	B	E	C	A	D	D	F	D	D	
Approach Vol, veh/h		2103			838			595			327	A
Approach Delay, s/veh		32.7			36.9			70.9			51.2	
Approach LOS		C			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	45.0	12.0	20.6	21.8	45.6	18.2	14.5
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 6.2	5.9	* 7.7	6.2	* 7.1
Max Green Setting (Gmax), s	12.3	* 38	13.6	* 8.9	16.1	* 37	13.8	* 7.9
Max Q Clear Time (g_c+I1), s	12.5	14.1	5.7	16.3	15.9	34.3	11.9	7.4
Green Ext Time (p_c), s	0.0	2.0	0.0	0.0	0.0	1.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1195	185	171	702	305	185
Future Volume (veh/h)	1195	185	171	702	305	185
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1299	201	186	763	332	201
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2028	905	253	2551	501	230
Arrive On Green	0.57	0.57	0.07	0.72	0.15	0.15
Sat Flow, veh/h	3647	1585	3456	3647	3456	1585
Grp Volume(v), veh/h	1299	201	186	763	332	201
Grp Sat Flow(s),veh/h/ln	1777	1585	1728	1777	1728	1585
Q Serve(g_s), s	24.7	6.2	5.3	7.7	9.1	12.4
Cycle Q Clear(g_c), s	24.7	6.2	5.3	7.7	9.1	12.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2028	905	253	2551	501	230
V/C Ratio(X)	0.64	0.22	0.73	0.30	0.66	0.87
Avail Cap(c_a), veh/h	2028	905	435	2551	529	243
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	10.6	45.4	5.1	40.4	41.9
Incr Delay (d2), s/veh	1.6	0.6	1.6	0.3	2.2	25.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	2.0	2.2	2.1	4.0	12.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.1	11.1	46.9	5.4	42.6	67.5
LnGrp LOS	B	B	D	A	D	E
Approach Vol, veh/h	1500			949	533	
Approach Delay, s/veh	15.4			13.5	52.0	
Approach LOS	B			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		78.8		21.2	14.7	64.1
Change Period (Y+Rc), s		7.0		* 6.7	* 7.4	7.0
Max Green Setting (Gmax), s		71.0		* 15	* 13	51.0
Max Q Clear Time (g_c+I1), s		9.7		14.4	7.3	26.7
Green Ext Time (p_c), s		3.0		0.1	0.1	6.1

Intersection Summary	
HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	0	962	45	72	83
Future Volume (veh/h)	24	0	962	45	72	83
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	0	1046	49	78	90
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	427	0	2553	1139	135	120
Arrive On Green	0.03	0.00	0.72	0.72	0.08	0.08
Sat Flow, veh/h	1781	26	3647	1585	1781	1585
Grp Volume(v), veh/h	26	4.1	1046	49	78	90
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	0.4		11.7	0.9	4.2	5.6
Cycle Q Clear(g_c), s	0.4		11.7	0.9	4.2	5.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	427		2553	1139	135	120
V/C Ratio(X)	0.06		0.41	0.04	0.58	0.75
Avail Cap(c_a), veh/h	577		2553	1139	267	238
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.0		5.6	4.1	44.7	45.3
Incr Delay (d2), s/veh	0.0		0.5	0.1	1.4	3.5
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1		3.2	0.2	1.9	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.1		6.1	4.2	46.1	48.7
LnGrp LOS	A		A	A	D	D
Approach Vol, veh/h			1095		168	
Approach Delay, s/veh			6.0		47.5	
Approach LOS			A		D	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	8.6	77.8				13.6
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	1.0	56.0				15.0
Max Q Clear Time (g_c+I1), s	2.4	13.7				7.6
Green Ext Time (p_c), s	0.0	3.5				0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.4
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	33	49	1	1	14	53	2	0	73	8
Future Vol, veh/h	6	2	33	49	1	1	14	53	2	0	73	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	2	36	53	1	1	15	58	2	0	79	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	144	174	44	130	177	30	88	0	0	60	0	0
Stage 1	84	84	-	89	89	-	-	-	-	-	-	-
Stage 2	60	90	-	41	88	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	811	718	1017	830	716	1038	1506	-	-	1542	-	-
Stage 1	915	824	-	908	820	-	-	-	-	-	-	-
Stage 2	944	820	-	968	821	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	803	711	1017	793	709	1038	1506	-	-	1542	-	-
Mov Cap-2 Maneuver	803	711	-	793	709	-	-	-	-	-	-	-
Stage 1	906	824	-	899	812	-	-	-	-	-	-	-
Stage 2	932	812	-	931	821	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	9.9	1.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1506	-	-	803	993	793	843	1542	-	-
HCM Lane V/C Ratio	0.01	-	-	0.008	0.038	0.067	0.003	-	-	-
HCM Control Delay (s)	7.4	-	-	9.5	8.8	9.9	9.3	0	-	-
HCM Lane LOS	A	-	-	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.2	0	0	-	-

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	52	8	20	0	1	61
Future Vol, veh/h	52	8	20	0	1	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	9	22	0	1	66

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	22	0	-	0	141	11
Stage 1	-	-	-	-	22	-
Stage 2	-	-	-	-	119	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1592	-	-	-	838	1067
Stage 1	-	-	-	-	998	-
Stage 2	-	-	-	-	893	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1592	-	-	-	808	1067
Mov Cap-2 Maneuver	-	-	-	-	808	-
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	893	-

Approach	EB	WB	SB
HCM Control Delay, s	6.4	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1592	-	-	-	1062
HCM Lane V/C Ratio	0.036	-	-	-	0.063
HCM Control Delay (s)	7.3	-	-	-	8.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1	9	36	2	1	6	22	24	0	17	1
Future Vol, veh/h	8	1	9	36	2	1	6	22	24	0	17	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	1	10	39	2	1	7	24	26	0	18	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	72	83	19	75	70	37	19	0	0	50	0	0
Stage 1	19	19	-	51	51	-	-	-	-	-	-	-
Stage 2	53	64	-	24	19	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	919	807	1059	915	821	1035	1597	-	-	1557	-	-
Stage 1	1000	880	-	962	852	-	-	-	-	-	-	-
Stage 2	960	842	-	994	880	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	913	803	1059	902	817	1035	1597	-	-	1557	-	-
Mov Cap-2 Maneuver	913	803	-	902	817	-	-	-	-	-	-	-
Stage 1	995	880	-	957	848	-	-	-	-	-	-	-
Stage 2	952	838	-	984	880	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	9.2	0.8	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1597	-	-	973	900	1557	-	-
HCM Lane V/C Ratio	0.004	-	-	0.02	0.047	-	-	-
HCM Control Delay (s)	7.3	0	-	8.8	9.2	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

2026 BACKGROUND PLUS PROJECT

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	77	35	0	7	18	214	21	2	375	1
Future Vol, veh/h	4	0	77	35	0	7	18	214	21	2	375	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	84	38	0	8	20	233	23	2	408	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	702	709	409	740	698	245	409	0	0	256	0	0
Stage 1	413	413	-	285	285	-	-	-	-	-	-	-
Stage 2	289	296	-	455	413	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	353	359	642	333	364	794	1150	-	-	1309	-	-
Stage 1	616	594	-	722	676	-	-	-	-	-	-	-
Stage 2	719	668	-	585	594	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	344	351	642	285	356	794	1150	-	-	1309	-	-
Mov Cap-2 Maneuver	344	351	-	285	356	-	-	-	-	-	-	-
Stage 1	604	593	-	708	662	-	-	-	-	-	-	-
Stage 2	698	655	-	508	593	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	18.2	0.6	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1150	-	-	616	319	1309	-	-
HCM Lane V/C Ratio	0.017	-	-	0.143	0.143	0.002	-	-
HCM Control Delay (s)	8.2	0	-	11.8	18.2	7.8	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.5	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	115	141	0	82	37	169	12	136	339	3
Future Volume (veh/h)	6	0	115	141	0	82	37	169	12	136	339	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	0	125	153	0	89	40	184	13	148	368	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	510	0	390	477	0	390	429	592	42	560	635	5
Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1308	0	1585	1266	0	1585	1011	1726	122	1186	1853	15
Grp Volume(v), veh/h	7	0	125	153	0	89	40	0	197	148	0	371
Grp Sat Flow(s),veh/h/ln	1308	0	1585	1266	0	1585	1011	0	1848	1186	0	1868
Q Serve(g_s), s	0.1	0.0	1.9	3.3	0.0	1.3	1.0	0.0	2.3	3.1	0.0	4.8
Cycle Q Clear(g_c), s	1.4	0.0	1.9	5.2	0.0	1.3	5.7	0.0	2.3	5.4	0.0	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.01
Lane Grp Cap(c), veh/h	510	0	390	477	0	390	429	0	633	560	0	640
V/C Ratio(X)	0.01	0.00	0.32	0.32	0.00	0.23	0.09	0.00	0.31	0.26	0.00	0.58
Avail Cap(c_a), veh/h	1219	0	1249	1163	0	1249	948	0	1584	1170	0	1600
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.4	0.0	9.0	11.1	0.0	8.8	10.2	0.0	7.1	9.0	0.0	7.9
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	0.7	0.0	0.3	0.2	0.0	0.6	0.5	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.4	0.0	9.2	11.3	0.0	8.9	10.3	0.0	7.2	9.1	0.0	8.2
LnGrp LOS	A	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		132			242			237			519	
Approach Delay, s/veh		9.2			10.4			7.7			8.4	
Approach LOS		A			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	16.0	13.2	16.0	13.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	25.0	23.0	25.0	23.0
Max Q Clear Time (g_c+I1), s	7.7	3.9	7.4	7.2
Green Ext Time (p_c), s	0.6	0.3	1.2	0.4

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	115	141	0	82	37	169	12	136	339	3
Future Volume (veh/h)	6	0	115	141	0	82	37	169	12	136	339	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	0	125	153	0	89	40	184	13	148	368	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	510	0	390	477	0	390	429	592	42	560	635	5
HCM 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
Prop Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.34	0.34	0.34	0.34	0.34	0.34
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.4	0.0	9.2	11.3	0.0	8.9	10.3	0.0	7.2	9.1	0.0	8.2
Ln Grp LOS	A	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		132			242			237			519	
Approach Delay, s/veh		9.2			10.4			7.7			8.4	
Approach LOS		A			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		16.0		13.2		16.0		13.2
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		25.0		23.0		25.0		23.0
Max Allow Headway (MAH), s		3.7		4.0		3.5		3.1
Max Q Clear (g_c+I1), s		7.7		3.9		7.4		7.2
Green Ext Time (g_e), s		0.6		0.3		1.2		0.4
Prob of Phs Call (p_c)		1.00		0.95		1.00		0.95
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00

Left-Turn Movement Data				
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1011		1308		1186		1266

Through Movement Data				
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1726		0		1853		0

Right-Turn Movement Data				
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		122		1585		15		1585

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	40	0	7	0	148	0	153
Grp Sat Flow (s), veh/h/ln	0	1011	0	1308	0	1186	0	1266
Q Serve Time (g_s), s	0.0	1.0	0.0	0.1	0.0	3.1	0.0	3.3
Cycle Q Clear Time (g_c), s	0.0	5.7	0.0	1.4	0.0	5.4	0.0	5.2
Perm LT Sat Flow (s_l), veh/h/ln	0	1011	0	1308	0	1186	0	1266
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	10.0	0.0	7.2	0.0	10.0	0.0	7.2
Perm LT Serve Time (g_u), s	0.0	5.2	0.0	5.9	0.0	7.7	0.0	5.3
Perm LT Q Serve Time (g_ps), s	0.0	1.0	0.0	0.1	0.0	3.1	0.0	3.3
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	429	0	510	0	560	0	477
V/C Ratio (X)	0.00	0.09	0.00	0.01	0.00	0.26	0.00	0.32
Avail Cap (c_a), veh/h	0	948	0	1219	0	1170	0	1163
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	9.4	0.0	9.0	0.0	11.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.3	0.0	9.4	0.0	9.1	0.0	11.3
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.01	0.00	0.14	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	197	0	125	0	371	0	89
Grp Sat Flow (s), veh/h/ln	0	1848	0	1585	0	1868	0	1585
Q Serve Time (g_s), s	0.0	2.3	0.0	1.9	0.0	4.8	0.0	1.3
Cycle Q Clear Time (g_c), s	0.0	2.3	0.0	1.9	0.0	4.8	0.0	1.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.07	0.00	1.00	0.00	0.01	0.00	1.00
Lane Grp Cap (c), veh/h	0	633	0	390	0	640	0	390
V/C Ratio (X)	0.00	0.31	0.00	0.32	0.00	0.58	0.00	0.23
Avail Cap (c_a), veh/h	0	1584	0	1249	0	1600	0	1249
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.1	0.0	9.0	0.0	7.9	0.0	8.8
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.3	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.2	0.0	9.2	0.0	8.2	0.0	8.9
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.4	0.0	1.1	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	0.5	0.0	1.2	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.03	0.00	0.02	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	1118	50	169	770	78	62	63	68	139	91	231
Future Volume (veh/h)	242	1118	50	169	770	78	62	63	68	139	91	231
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	263	1215	54	184	837	85	67	68	74	151	99	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	332	1619	502	520	1617	721	165	134	114	184	439	
Arrive On Green	0.10	0.32	0.32	0.23	0.46	0.46	0.07	0.07	0.07	0.10	0.23	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1296	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	263	1215	54	184	837	85	67	68	74	151	99	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1296	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.4	21.3	2.4	1.6	16.8	3.1	5.1	3.5	2.7	8.3	4.3	0.0
Cycle Q Clear(g_c), s	7.4	21.3	2.4	1.6	16.8	3.1	5.1	3.5	2.7	8.3	4.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	332	1619	502	520	1617	721	165	134	114	184	439	
V/C Ratio(X)	0.79	0.75	0.11	0.35	0.52	0.12	0.41	0.51	0.65	0.82	0.23	
Avail Cap(c_a), veh/h	467	1619	502	520	1617	721	220	213	181	285	625	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.2	30.6	24.1	28.8	19.4	15.7	45.4	44.7	16.1	43.9	30.9	0.0
Incr Delay (d2), s/veh	3.9	3.3	0.4	0.2	1.2	0.3	0.6	1.1	2.3	10.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	8.5	0.9	3.3	6.5	1.2	1.6	1.7	1.8	4.2	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.2	33.9	24.6	28.9	20.6	16.0	46.0	45.8	18.4	54.4	31.0	0.0
LnGrp LOS	D	C	C	C	C	B	D	D	B	D	C	
Approach Vol, veh/h		1532			1106			209			250	A
Approach Delay, s/veh		36.0			21.6			36.2			45.1	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	16.1	52.8	16.3	14.8	29.9	39.0		31.1
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 14	* 32	16.0	11.4	* 14	* 32		33.4
Max Q Clear Time (g_c+I1), s	9.4	18.8	10.3	7.1	3.6	23.3		6.3
Green Ext Time (p_c), s	0.2	2.7	0.2	0.1	0.0	3.3		0.2

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	1118	50	169	770	78	62	63	68	139	91	231
Future Volume (veh/h)	242	1118	50	169	770	78	62	63	68	139	91	231
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	263	1215	54	184	837	85	67	68	74	151	99	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	332	1619	502	520	1617	721	165	134	114	184	439	
HCM 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
Prop Arrive On Green	0.10	0.32	0.32	0.23	0.46	0.46	0.07	0.07	0.07	0.10	0.23	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	48.2	33.9	24.6	28.9	20.6	16.0	46.0	45.8	18.4	54.4	31.0	0.0
Ln Grp LOS	D	C	C	C	C	B	D	D	B	D	C	
Approach Vol, veh/h		1532			1106			209			250	
Approach Delay, s/veh		36.0			21.6			36.2			45.1	
Approach LOS		D			C			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	6	5		8
Case No	2.0	3.0	2.0	5.3	3.0	1.3		3.0
Phs Duration (G+Y+Rc), s	16.1	52.8	16.3	14.8	39.0	29.9		31.1
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 14	* 32	16.0	11.4	* 32	* 14		33.4
Max Allow Headway (MAH), s	2.5	3.5	3.8	2.6	3.6	1.3		3.4
Max Q Clear (g_c+I1), s	9.4	18.8	10.3	7.1	23.3	3.6		6.3
Green Ext Time (g_e), s	0.2	2.7	0.2	0.1	3.3	0.0		0.2
Prob of Phs Call (p_c)	1.00	1.00	0.98	1.00	1.00	0.99		1.00
Prob of Max Out (p_x)	0.11	0.00	0.19	0.12	0.00	0.01		0.00

Left-Turn Movement Data								
Assigned Mvmt	1		3	7		5		
Mvmt Sat Flow, veh/h	3456		1781	1296		1781		

Through Movement Data								
Assigned Mvmt		2		4	6			8
Mvmt Sat Flow, veh/h		3554		1870	5106			1870

Right-Turn Movement Data								
Assigned Mvmt		12		14	16			18
Mvmt Sat Flow, veh/h		1585		1585	1585			1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L (Prot)	L		L (Pr/Pm)		

Lanes in Grp	2	0	1	1	0	1	0	0
Grp Vol (v), veh/h	263	0	151	67	0	184	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1296	0	1781	0	0
Q Serve Time (g_s), s	7.4	0.0	8.3	5.1	0.0	1.6	0.0	0.0
Cycle Q Clear Time (g_c), s	7.4	0.0	8.3	5.1	0.0	1.6	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1296	0	437	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	7.2	0.0	31.7	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	7.2	0.0	10.4	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	5.1	0.0	10.4	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	332	0	184	165	0	520	0	0
V/C Ratio (X)	0.79	0.00	0.82	0.41	0.00	0.35	0.00	0.00
Avail Cap (c_a), veh/h	467	0	285	220	0	520	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	44.2	0.0	43.9	45.4	0.0	28.8	0.0	0.0
Incr Delay (d2), s/veh	3.9	0.0	10.5	0.6	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	48.2	0.0	54.4	46.0	0.0	28.9	0.0	0.0
1st-Term Q (Q1), veh/ln	3.0	0.0	3.6	1.6	0.0	3.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.5	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	3.2	0.0	4.2	1.6	0.0	3.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.19	0.00	0.46	0.26	0.00	0.31	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	837	0	68	1215	0	0	99
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	16.8	0.0	3.5	21.3	0.0	0.0	4.3
Cycle Q Clear Time (g_c), s	0.0	16.8	0.0	3.5	21.3	0.0	0.0	4.3
Lane Grp Cap (c), veh/h	0	1617	0	134	1619	0	0	439
V/C Ratio (X)	0.00	0.52	0.00	0.51	0.75	0.00	0.00	0.23
Avail Cap (c_a), veh/h	0	1617	0	213	1619	0	0	625
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.4	0.0	44.7	30.6	0.0	0.0	30.9
Incr Delay (d2), s/veh	0.0	1.2	0.0	1.1	3.3	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.6	0.0	45.8	33.9	0.0	0.0	31.0
1st-Term Q (Q1), veh/ln	0.0	6.2	0.0	1.6	8.1	0.0	0.0	1.9
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.5	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.5	0.0	1.7	8.5	0.0	0.0	1.9
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.07	0.18	0.00	0.00	0.22
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	85	0	74	54	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	3.1	0.0	2.7	2.4	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.1	0.0	2.7	2.4	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	721	0	114	502	0	0	372
V/C Ratio (X)	0.00	0.12	0.00	0.65	0.11	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	721	0	181	502	0	0	529
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	15.7	0.0	16.1	24.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	2.3	0.4	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.0	0.0	18.4	24.6	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	1.7	0.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	1.8	0.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.29	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1103	314	393	660	10	429	57	159	28	135	108
Future Volume (veh/h)	63	1103	314	393	660	10	429	57	159	28	135	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1199	341	427	717	11	466	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	487	1363	423	454	1329	593	511	635	283	98	217	
Arrive On Green	0.14	0.27	0.27	0.26	0.37	0.37	0.15	0.18	0.18	0.03	0.06	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	68	1199	341	427	717	11	466	62	173	30	147	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.7	22.5	20.1	23.5	15.8	0.3	13.3	1.5	10.1	0.9	4.1	0.0
Cycle Q Clear(g_c), s	1.7	22.5	20.1	23.5	15.8	0.3	13.3	1.5	10.1	0.9	4.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	487	1363	423	454	1329	593	511	635	283	98	217	
V/C Ratio(X)	0.14	0.88	0.81	0.94	0.54	0.02	0.91	0.10	0.61	0.31	0.68	
Avail Cap(c_a), veh/h	487	1363	423	465	1329	593	511	635	283	470	281	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.6	35.1	34.2	36.5	24.5	11.0	42.0	34.3	37.9	47.6	46.0	0.0
Incr Delay (d2), s/veh	0.0	8.4	15.1	26.6	1.6	0.1	20.1	0.0	2.8	0.7	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	9.7	9.4	12.8	6.4	0.2	7.0	0.6	4.1	0.4	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	43.5	49.3	63.1	26.1	11.1	62.0	34.3	40.6	48.3	48.1	0.0
LnGrp LOS	D	D	D	E	C	B	E	C	D	D	D	
Approach Vol, veh/h		1608			1155			701			177	A
Approach Delay, s/veh		44.5			39.6			54.3			48.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.8	44.0	9.2	25.0	31.4	34.4	21.0	13.2
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 7.1	5.9	* 7.7	* 6.2	7.1
Max Green Setting (Gmax), s	12.3	* 37	13.6	* 9.9	26.1	* 26	* 15	7.9
Max Q Clear Time (g_c+I1), s	13.7	17.8	2.9	12.1	25.5	24.5	15.3	6.1
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.0	0.6	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1103	314	393	660	10	429	57	159	28	135	108
Future Volume (veh/h)	63	1103	314	393	660	10	429	57	159	28	135	108
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1199	341	427	717	11	466	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	487	1363	423	454	1329	593	511	635	283	98	217	
HCM 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
Prop Arrive On Green	0.14	0.27	0.27	0.26	0.37	0.37	0.15	0.18	0.18	0.03	0.06	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	37.7	43.5	49.3	63.1	26.1	11.1	62.0	34.3	40.6	48.3	48.1	0.0
Ln Grp LOS	D	D	D	E	C	B	E	C	D	D	D	
Approach Vol, veh/h		1608			1155			701			177	
Approach Delay, s/veh		44.5			39.6			54.3			48.1	
Approach LOS		D			D			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	3	4	5	6	7	8
Case No	3.0	2.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	44.0	21.8	9.2	25.0	31.4	34.4	21.0	13.2
Change Period (Y+Rc), s	* 6.6	7.7	6.4	* 7.1	5.9	* 7.7	* 6.2	7.1
Max Green (Gmax), s	* 37	12.3	13.6	* 9.9	26.1	* 26	* 15	7.9
Max Allow Headway (MAH), s	3.6	1.3	1.6	2.6	1.3	3.4	1.4	3.1
Max Q Clear (g_c+I1), s	17.8	3.7	2.9	12.1	25.5	24.5	15.3	6.1
Green Ext Time (g_e), s	2.4	0.0	0.0	0.0	0.0	0.6	0.0	0.1
Prob of Phs Call (p_c)	1.00	0.85	0.57	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt		1	3		5		7	
Mvmt Sat Flow, veh/h		3456	3456		1781		3456	

Through Movement Data								
Assigned Mvmt	2			4		6		8
Mvmt Sat Flow, veh/h	3554			3554		5106		3554

Right-Turn Movement Data								
Assigned Mvmt	12			14		16		18
Mvmt Sat Flow, veh/h	1585			1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	0	1	3	0	5	0	7	0
Lane Assignment		L (Prot)	L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	0	2	2	0	1	0	2	0
Grp Vol (v), veh/h	0	68	30	0	427	0	466	0
Grp Sat Flow (s), veh/h/ln	0	1728	1728	0	1781	0	1728	0
Q Serve Time (g_s), s	0.0	1.7	0.9	0.0	23.5	0.0	13.3	0.0
Cycle Q Clear Time (g_c), s	0.0	1.7	0.9	0.0	23.5	0.0	13.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	487	98	0	454	0	511	0
V/C Ratio (X)	0.00	0.14	0.31	0.00	0.94	0.00	0.91	0.00
Avail Cap (c_a), veh/h	0	487	470	0	465	0	511	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	37.6	47.6	0.0	36.5	0.0	42.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.0	26.6	0.0	20.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	37.7	48.3	0.0	63.1	0.0	62.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.7	0.4	0.0	9.5	0.0	5.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	3.4	0.0	1.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.4	0.0	12.8	0.0	7.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.04	0.00	1.45	0.00	0.69	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	0	8
Lane Assignment	T			T		T		T
Lanes in Grp	2	0	0	2	0	3	0	2
Grp Vol (v), veh/h	717	0	0	62	0	1199	0	147
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	0	1777
Q Serve Time (g_s), s	15.8	0.0	0.0	1.5	0.0	22.5	0.0	4.1
Cycle Q Clear Time (g_c), s	15.8	0.0	0.0	1.5	0.0	22.5	0.0	4.1
Lane Grp Cap (c), veh/h	1329	0	0	635	0	1363	0	217
V/C Ratio (X)	0.54	0.00	0.00	0.10	0.00	0.88	0.00	0.68
Avail Cap (c_a), veh/h	1329	0	0	635	0	1363	0	281
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	24.5	0.0	0.0	34.3	0.0	35.1	0.0	46.0
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.0	0.0	8.4	0.0	2.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.1	0.0	0.0	34.3	0.0	43.5	0.0	48.1
1st-Term Q (Q1), veh/ln	6.1	0.0	0.0	0.6	0.0	8.7	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.0	0.0	0.0	1.1	0.0	0.1

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	6.4	0.0	0.0	0.6	0.0	9.7	0.0	1.8
%ile Storage Ratio (RQ%)	0.15	0.00	0.00	0.03	0.00	0.53	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	0	18
Lane Assignment	R			R		R		R
Lanes in Grp	1	0	0	1	0	1	0	1
Grp Vol (v), veh/h	11	0	0	173	0	341	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.3	0.0	0.0	10.1	0.0	20.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.3	0.0	0.0	10.1	0.0	20.1	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	593	0	0	283	0	423	0	97
V/C Ratio (X)	0.02	0.00	0.00	0.61	0.00	0.81	0.00	0.00
Avail Cap (c_a), veh/h	593	0	0	283	0	423	0	125
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	11.0	0.0	0.0	37.9	0.0	34.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	2.8	0.0	15.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	11.1	0.0	0.0	40.6	0.0	49.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.2	0.0	0.0	3.9	0.0	7.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	1.8	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.2	0.0	0.0	4.1	0.0	9.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.02	0.00	0.00	0.40	0.00	1.06	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	874	279	166	624	305	344	99	161	352	113	137
Future Volume (veh/h)	107	874	279	166	624	305	344	99	161	352	113	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	950	303	180	678	332	374	108	175	383	123	149
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	1310	584	247	1276	569	440	98	159	446	289	245
Arrive On Green	0.08	0.37	0.37	0.07	0.36	0.36	0.13	0.15	0.15	0.13	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	642	1041	3456	1870	1585
Grp Volume(v), veh/h	116	950	303	180	678	332	374	0	283	383	123	149
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	0	1683	1728	1870	1585
Q Serve(g_s), s	6.4	23.0	14.9	5.1	15.1	17.0	10.6	0.0	15.3	10.9	6.0	8.8
Cycle Q Clear(g_c), s	6.4	23.0	14.9	5.1	15.1	17.0	10.6	0.0	15.3	10.9	6.0	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		1.00
Lane Grp Cap(c), veh/h	144	1310	584	247	1276	569	440	0	258	446	289	245
V/C Ratio(X)	0.80	0.73	0.52	0.73	0.53	0.58	0.85	0.00	1.10	0.86	0.43	0.61
Avail Cap(c_a), veh/h	224	1310	584	435	1276	569	529	0	258	460	289	245
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	27.2	24.6	45.5	25.4	26.0	42.7	0.0	42.4	42.7	38.3	39.5
Incr Delay (d2), s/veh	5.4	3.5	3.3	1.5	1.6	4.3	9.4	0.0	85.2	14.0	0.4	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	9.5	6.0	2.1	6.1	6.9	5.1	0.0	12.4	5.5	2.7	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	30.7	27.9	47.0	27.0	30.3	52.1	0.0	127.5	56.7	38.6	42.6
LnGrp LOS	D	C	C	D	C	C	D	A	F	E	D	D
Approach Vol, veh/h		1369			1190			657			655	
Approach Delay, s/veh		31.8			30.9			84.6			50.1	
Approach LOS		C			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	42.9	19.6	22.0	14.5	43.9	19.4	22.2
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 13	31.0	* 13	* 15	* 13	31.0	* 15	* 13
Max Q Clear Time (g_c+I1), s	8.4	19.0	12.9	17.3	7.1	25.0	12.6	10.8
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	0.1	2.4	0.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	874	279	166	624	305	344	99	161	352	113	137
Future Volume (veh/h)	107	874	279	166	624	305	344	99	161	352	113	137
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	950	303	180	678	332	374	108	175	383	123	149
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	144	1310	584	247	1276	569	440	98	159	446	289	245
HCM 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
Prop Arrive On Green	0.08	0.37	0.37	0.07	0.36	0.36	0.13	0.15	0.15	0.13	0.15	0.15
Unsig. Movement Delay												
Ln Grp Delay, s/veh	50.6	30.7	27.9	47.0	27.0	30.3	52.1	0.0	127.5	56.7	38.6	42.6
Ln Grp LOS	D	C	C	D	C	C	D	A	F	E	D	D
Approach Vol, veh/h		1369			1190			657			655	
Approach Delay, s/veh		31.8			30.9			84.6			50.1	
Approach LOS		C			C			F			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	4.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	15.5	42.9	19.6	22.0	14.5	43.9	19.4	22.2
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green (Gmax), s	* 13	31.0	* 13	* 15	* 13	31.0	* 15	* 13
Max Allow Headway (MAH), s	2.2	3.4	2.3	4.5	2.2	3.5	2.2	3.5
Max Q Clear (g_c+I1), s	8.4	19.0	12.9	17.3	7.1	25.0	12.6	10.8
Green Ext Time (g_e), s	0.0	2.5	0.0	0.0	0.1	2.4	0.2	0.2
Prob of Phs Call (p_c)	0.96	1.00	1.00	1.00	0.99	1.00	1.00	1.00
Prob of Max Out (p_x)	0.02	0.00	1.00	1.00	0.00	0.00	0.45	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	1781		3456		3456		3456	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3554		642		3554		1870

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1041		1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	1	0	2	0	2	0	2	0
Grp Vol (v), veh/h	116	0	383	0	180	0	374	0
Grp Sat Flow (s), veh/h/ln	1781	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	6.4	0.0	10.9	0.0	5.1	0.0	10.6	0.0
Cycle Q Clear Time (g_c), s	6.4	0.0	10.9	0.0	5.1	0.0	10.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	144	0	446	0	247	0	440	0
V/C Ratio (X)	0.80	0.00	0.86	0.00	0.73	0.00	0.85	0.00
Avail Cap (c_a), veh/h	224	0	460	0	435	0	529	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	45.2	0.0	42.7	0.0	45.5	0.0	42.7	0.0
Incr Delay (d2), s/veh	5.4	0.0	14.0	0.0	1.5	0.0	9.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	50.6	0.0	56.7	0.0	47.0	0.0	52.1	0.0
1st-Term Q (Q1), veh/ln	2.7	0.0	4.6	0.0	2.1	0.0	4.5	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.9	0.0	0.1	0.0	0.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.9	0.0	5.5	0.0	2.1	0.0	5.1	0.0
%ile Storage Ratio (RQ%)	0.15	0.00	0.69	0.00	0.22	0.00	0.50	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		T
Lanes in Grp	0	2	0	0	0	2	0	1
Grp Vol (v), veh/h	0	678	0	0	0	950	0	123
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	1870
Q Serve Time (g_s), s	0.0	15.1	0.0	0.0	0.0	23.0	0.0	6.0
Cycle Q Clear Time (g_c), s	0.0	15.1	0.0	0.0	0.0	23.0	0.0	6.0
Lane Grp Cap (c), veh/h	0	1276	0	0	0	1310	0	289
V/C Ratio (X)	0.00	0.53	0.00	0.00	0.00	0.73	0.00	0.43
Avail Cap (c_a), veh/h	0	1276	0	0	0	1310	0	289
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.4	0.0	0.0	0.0	27.2	0.0	38.3
Incr Delay (d2), s/veh	0.0	1.6	0.0	0.0	0.0	3.5	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	27.0	0.0	0.0	0.0	30.7	0.0	38.6
1st-Term Q (Q1), veh/ln	0.0	5.9	0.0	0.0	0.0	8.9	0.0	2.7
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.6	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.1	0.0	0.0	0.0	9.5	0.0	2.7
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.23	0.00	0.21
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	332	0	283	0	303	0	149
Grp Sat Flow (s), veh/h/ln	0	1585	0	1683	0	1585	0	1585
Q Serve Time (g_s), s	0.0	17.0	0.0	15.3	0.0	14.9	0.0	8.8
Cycle Q Clear Time (g_c), s	0.0	17.0	0.0	15.3	0.0	14.9	0.0	8.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.62	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	569	0	258	0	584	0	245
V/C Ratio (X)	0.00	0.58	0.00	1.10	0.00	0.52	0.00	0.61
Avail Cap (c_a), veh/h	0	569	0	258	0	584	0	245
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	26.0	0.0	42.4	0.0	24.6	0.0	39.5
Incr Delay (d2), s/veh	0.0	4.3	0.0	85.2	0.0	3.3	0.0	3.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	30.3	0.0	127.5	0.0	27.9	0.0	42.6
1st-Term Q (Q1), veh/ln	0.0	6.3	0.0	6.3	0.0	5.5	0.0	3.4
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	6.1	0.0	0.5	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.9	0.0	12.4	0.0	6.0	0.0	3.6
%ile Storage Ratio (RQ%)	0.00	0.72	0.00	0.67	0.00	0.30	0.00	0.91
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	923	182	219	161
Future Volume (veh/h)	166	0	923	182	219	161
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1003	198	238	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	577	0	1564	697	274	244
Arrive On Green	0.23	0.00	0.44	0.44	0.15	0.15
Sat Flow, veh/h	1781	180	3647	1585	1781	1585
Grp Volume(v), veh/h	180	23.8	1003	198	238	175
Grp Sat Flow(s),veh/h/ln	1781	C	1777	1585	1781	1585
Q Serve(g_s), s	0.0		22.0	8.0	13.0	10.5
Cycle Q Clear(g_c), s	0.0		22.0	8.0	13.0	10.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	577		1564	697	274	244
V/C Ratio(X)	0.31		0.64	0.28	0.87	0.72
Avail Cap(c_a), veh/h	577		1564	697	445	396
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7		21.8	17.9	41.3	40.2
Incr Delay (d2), s/veh	0.1		2.0	1.0	5.7	1.5
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2		8.6	2.9	6.1	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.8		23.9	18.9	47.0	41.7
LnGrp LOS	C		C	B	D	D
Approach Vol, veh/h			1201		413	
Approach Delay, s/veh			23.1		44.8	
Approach LOS			C		D	

Timer - Assigned Phs	1	2	8
Phs Duration (G+Y+Rc), s	28.6	50.0	21.4
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	13.6	44.0	25.0
Max Q Clear Time (g_c+I1), s	12.0	24.0	15.0
Green Ext Time (p_c), s	0.1	3.2	0.3

Intersection Summary	
HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	923	182	219	161
Future Volume (veh/h)	166	0	923	182	219	161
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1003	198	238	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	577	0	1564	697	274	244
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.23	0.00	0.44	0.44	0.15	0.15
Unsig. Movement Delay						
Ln Grp Delay, s/veh	23.8	0.0	23.9	18.9	47.0	41.7
Ln Grp LOS	C	A	C	B	D	D
Approach Vol, veh/h		180	1201		413	
Approach Delay, s/veh		23.8	23.1		44.8	
Approach LOS		C	C		D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	8					
Case No	7.0	1.4	9.0					
Phs Duration (G+Y+Rc), s	50.0	28.6	21.4					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	44.0	13.0	25.0					
Max Allow Headway (MAH), s	3.2	2.2	2.4					
Max Q Clear (g_c+I1), s	24.0	2.0	15.0					
Green Ext Time (g_e), s	3.2	0.1	0.3					
Prob of Phs Call (p_c)	1.00	0.99	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	5	1	3
Mvmt Sat Flow, veh/h	0	1781	1781

Through Movement Data			
Assigned Mvmt	2		8
Mvmt Sat Flow, veh/h	3647		0

Right-Turn Movement Data			
Assigned Mvmt	12		18
Mvmt Sat Flow, veh/h	1585		1585

Left Lane Group Data								
Assigned Mvmt	5	1	3	0	0	0	0	0
Lane Assignment		L (Pr/Pm)	L					

Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	180	238	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1781	1781	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	466	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	577	274	0	0	0	0	0
V/C Ratio (X)	0.00	0.31	0.87	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	577	445	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	23.7	41.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	5.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.8	47.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.2	5.7	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.2	6.1	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.30	0.36	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	8	0	0	0	0	0
Lane Assignment	T							
Lanes in Grp	2	0	0	0	0	0	0	0
Grp Vol (v), veh/h	1003	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1777	0	0	0	0	0	0	0
Q Serve Time (g_s), s	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	1564	0	0	0	0	0	0	0
V/C Ratio (X)	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1564	0	0	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	21.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	23.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	12	0	18	0	0	0	0	0
Lane Assignment	R		R					
Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	198	0	175	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	1585	0	0	0	0	0
Q Serve Time (g_s), s	8.0	0.0	10.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	8.0	0.0	10.5	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	697	0	244	0	0	0	0	0
V/C Ratio (X)	0.28	0.00	0.72	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	697	0	396	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	17.9	0.0	40.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	18.9	0.0	41.7	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	2.7	0.0	4.1	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	2.9	0.0	4.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.66	0.00	0.24	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	3	35	58	0	0	4	265	66	0	264	39
Future Vol, veh/h	59	3	35	58	0	0	4	265	66	0	264	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	3	38	63	0	0	4	288	72	0	287	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	460	676	165	477	661	180	329	0	0	360	0	0
Stage 1	308	308	-	332	332	-	-	-	-	-	-	-
Stage 2	152	368	-	145	329	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	485	374	850	471	381	832	1227	-	-	1195	-	-
Stage 1	677	659	-	655	643	-	-	-	-	-	-	-
Stage 2	835	620	-	843	645	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	484	373	850	446	380	832	1227	-	-	1195	-	-
Mov Cap-2 Maneuver	484	373	-	446	380	-	-	-	-	-	-	-
Stage 1	675	659	-	653	641	-	-	-	-	-	-	-
Stage 2	832	618	-	801	645	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	14.4	0.1	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1227	-	-	484	772	446	-	1195	-	-
HCM Lane V/C Ratio	0.004	-	-	0.133	0.054	0.141	-	-	-	-
HCM Control Delay (s)	7.9	-	-	13.6	9.9	14.4	0	0	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0.5	-	0	-	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	211	113	94	0	0	208
Future Vol, veh/h	211	113	94	0	0	208
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	229	123	102	0	0	226

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	102	0	-	0	622	51
Stage 1	-	-	-	-	102	-
Stage 2	-	-	-	-	520	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1488	-	-	-	419	1006
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	561	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1488	-	-	-	354	1006
Mov Cap-2 Maneuver	-	-	-	-	354	-
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	561	-

Approach	EB	WB	SB
HCM Control Delay, s	5.1	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1488	-	-	-	1006
HCM Lane V/C Ratio	0.154	-	-	-	0.225
HCM Control Delay (s)	7.9	-	-	-	9.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.9

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	55	1	0	4	44	44	0	45	2
Future Vol, veh/h	0	0	11	55	1	0	4	44	44	0	45	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	60	1	0	4	48	48	0	49	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	131	154	50	136	131	72	51	0	0	96	0	0
Stage 1	50	50	-	80	80	-	-	-	-	-	-	-
Stage 2	81	104	-	56	51	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	841	738	1018	835	760	990	1555	-	-	1498	-	-
Stage 1	963	853	-	929	828	-	-	-	-	-	-	-
Stage 2	927	809	-	956	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	838	736	1018	823	758	990	1555	-	-	1498	-	-
Mov Cap-2 Maneuver	838	736	-	823	758	-	-	-	-	-	-	-
Stage 1	960	853	-	926	826	-	-	-	-	-	-	-
Stage 2	923	807	-	945	852	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.6	9.7	0.3	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1555	-	-	1018	822	1498	-	-
HCM Lane V/C Ratio	0.003	-	-	0.012	0.074	-	-	-
HCM Control Delay (s)	7.3	0	-	8.6	9.7	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	47	33	0	11	51	347	51	7	379	4
Future Vol, veh/h	3	0	47	33	0	11	51	347	51	7	379	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	51	36	0	12	55	377	55	8	412	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	951	972	414	971	947	405	416	0	0	432	0	0
Stage 1	430	430	-	515	515	-	-	-	-	-	-	-
Stage 2	521	542	-	456	432	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	240	252	638	232	261	646	1143	-	-	1128	-	-
Stage 1	603	583	-	543	535	-	-	-	-	-	-	-
Stage 2	539	520	-	584	582	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	223	234	638	202	242	646	1143	-	-	1128	-	-
Mov Cap-2 Maneuver	223	234	-	202	242	-	-	-	-	-	-	-
Stage 1	564	579	-	508	501	-	-	-	-	-	-	-
Stage 2	495	487	-	533	578	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	23.3	0.9	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1143	-	-	574	244	1128	-	-
HCM Lane V/C Ratio	0.048	-	-	0.095	0.196	0.007	-	-
HCM Control Delay (s)	8.3	0	-	11.9	23.3	8.2	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	0.7	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	91	145	0	92	89	362	167	119	337	7
Future Volume (veh/h)	5	0	91	145	0	92	89	362	167	119	337	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	99	158	0	100	97	393	182	129	366	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	402	0	353	403	0	353	527	574	266	367	865	19
Arrive On Green	0.22	0.00	0.22	0.22	0.00	0.22	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1295	0	1585	1296	0	1585	1009	1209	560	838	1823	40
Grp Volume(v), veh/h	5	0	99	158	0	100	97	0	575	129	0	374
Grp Sat Flow(s),veh/h/ln	1295	0	1585	1296	0	1585	1009	0	1770	838	0	1863
Q Serve(g_s), s	0.1	0.0	2.1	4.6	0.0	2.1	2.8	0.0	10.0	5.6	0.0	5.2
Cycle Q Clear(g_c), s	2.2	0.0	2.1	6.6	0.0	2.1	8.0	0.0	10.0	15.6	0.0	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		0.02
Lane Grp Cap(c), veh/h	402	0	353	403	0	353	527	0	840	367	0	884
V/C Ratio(X)	0.01	0.00	0.28	0.39	0.00	0.28	0.18	0.00	0.68	0.35	0.00	0.42
Avail Cap(c_a), veh/h	801	0	840	802	0	840	736	0	1206	541	0	1270
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.7	0.0	12.8	15.5	0.0	12.8	9.5	0.0	8.1	14.2	0.0	6.8
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.2	0.0	0.2	0.1	0.0	0.4	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	1.1	0.0	0.6	0.5	0.0	2.6	0.9	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.7	0.0	12.9	15.7	0.0	12.9	9.5	0.0	8.5	14.4	0.0	7.0
LnGrp LOS	B	A	B	B	A	B	A	A	A	B	A	A
Approach Vol, veh/h		104			258			672			503	
Approach Delay, s/veh		13.0			14.7			8.6			8.9	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	24.8	14.8	24.8	14.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	27.0	21.0	27.0	21.0
Max Q Clear Time (g_c+I1), s	12.0	4.2	17.6	8.6
Green Ext Time (p_c), s	2.0	0.2	1.2	0.4

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	91	145	0	92	89	362	167	119	337	7
Future Volume (veh/h)	5	0	91	145	0	92	89	362	167	119	337	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	99	158	0	100	97	393	182	129	366	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	402	0	353	403	0	353	527	574	266	367	865	19
HCM 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
Prop Arrive On Green	0.22	0.00	0.22	0.22	0.00	0.22	0.47	0.47	0.47	0.47	0.47	0.47
Unsig. Movement Delay												
Ln Grp Delay, s/veh	13.7	0.0	12.9	15.7	0.0	12.9	9.5	0.0	8.5	14.4	0.0	7.0
Ln Grp LOS	B	A	B	B	A	B	A	A	A	B	A	A
Approach Vol, veh/h		104			258			672			503	
Approach Delay, s/veh		13.0			14.7			8.6			8.9	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		24.8		14.8		24.8		14.8
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		27.0		21.0		27.0		21.0
Max Allow Headway (MAH), s		3.8		4.0		3.8		3.1
Max Q Clear (g_c+I1), s		12.0		4.2		17.6		8.6
Green Ext Time (g_e), s		2.0		0.2		1.2		0.4
Prob of Phs Call (p_c)		1.00		0.98		1.00		0.98
Prob of Max Out (p_x)		0.02		0.00		0.09		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1009		1295		838		1296
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1209		0		1823		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		560		1585		40		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	97	0	5	0	129	0	158
Grp Sat Flow (s), veh/h/ln	0	1009	0	1295	0	838	0	1296
Q Serve Time (g_s), s	0.0	2.8	0.0	0.1	0.0	5.6	0.0	4.6
Cycle Q Clear Time (g_c), s	0.0	8.0	0.0	2.2	0.0	15.6	0.0	6.6
Perm LT Sat Flow (s_l), veh/h/ln	0	1009	0	1295	0	838	0	1296
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.8	0.0	8.8	0.0	18.8	0.0	8.8
Perm LT Serve Time (g_u), s	0.0	13.6	0.0	6.7	0.0	8.8	0.0	6.8
Perm LT Q Serve Time (g_ps), s	0.0	2.8	0.0	0.1	0.0	5.6	0.0	4.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	527	0	402	0	367	0	403
V/C Ratio (X)	0.00	0.18	0.00	0.01	0.00	0.35	0.00	0.39
Avail Cap (c_a), veh/h	0	736	0	801	0	541	0	802
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.5	0.0	13.7	0.0	14.2	0.0	15.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.5	0.0	13.7	0.0	14.4	0.0	15.7
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.0	0.0	0.9	0.0	1.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	0.0	0.0	0.9	0.0	1.1
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.01	0.00	0.23	0.00	0.29
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	575	0	99	0	374	0	100
Grp Sat Flow (s), veh/h/ln	0	1770	0	1585	0	1863	0	1585
Q Serve Time (g_s), s	0.0	10.0	0.0	2.1	0.0	5.2	0.0	2.1
Cycle Q Clear Time (g_c), s	0.0	10.0	0.0	2.1	0.0	5.2	0.0	2.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.32	0.00	1.00	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	840	0	353	0	884	0	353
V/C Ratio (X)	0.00	0.68	0.00	0.28	0.00	0.42	0.00	0.28
Avail Cap (c_a), veh/h	0	1206	0	840	0	1270	0	840
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.1	0.0	12.8	0.0	6.8	0.0	12.8
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.2	0.0	0.1	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.5	0.0	12.9	0.0	7.0	0.0	12.9
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	0.6	0.0	1.4	0.0	0.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.6	0.0	0.6	0.0	1.4	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.03	0.00	0.02	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	420	1976	53	237	844	160	104	179	178	164	120	221
Future Volume (veh/h)	420	1976	53	237	844	160	104	179	178	164	120	221
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	457	2148	58	258	917	174	113	195	193	178	130	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	517	2242	696	522	1964	876	201	209	177	204	517	
Arrive On Green	0.15	0.44	0.44	0.26	0.55	0.55	0.11	0.11	0.11	0.11	0.28	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1260	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	457	2148	58	258	917	174	113	195	193	178	130	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1260	1870	1585	1781	1870	1585
Q Serve(g_s), s	15.6	48.9	2.6	9.9	18.7	6.6	10.5	12.4	10.0	11.8	6.5	0.0
Cycle Q Clear(g_c), s	15.6	48.9	2.6	9.9	18.7	6.6	10.5	12.4	10.0	11.8	6.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	517	2242	696	522	1964	876	201	209	177	204	517	
V/C Ratio(X)	0.88	0.96	0.08	0.49	0.47	0.20	0.56	0.93	1.09	0.87	0.25	
Avail Cap(c_a), veh/h	648	2242	696	522	1964	876	201	209	177	208	521	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.0	32.6	19.6	35.6	16.2	13.5	52.0	52.9	29.8	52.2	33.8	0.0
Incr Delay (d2), s/veh	10.2	11.4	0.2	0.3	0.8	0.5	2.2	43.4	93.9	30.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	20.8	0.9	6.0	7.1	2.5	3.4	8.3	8.5	7.0	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	44.0	19.8	35.9	17.0	14.0	54.2	96.3	123.7	82.5	33.9	0.0
LnGrp LOS	E	D	B	D	B	B	D	F	F	F	C	
Approach Vol, veh/h		2663			1349			501			308	A
Approach Delay, s/veh		46.2			20.2			97.4			62.0	
Approach LOS		D			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	24.4	73.6	19.8	21.0	38.1	60.0		40.8
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 23	* 43	14.0	13.4	* 13	* 53		33.4
Max Q Clear Time (g_c+I1), s	17.6	20.7	13.8	14.4	11.9	50.9		8.5
Green Ext Time (p_c), s	0.4	3.6	0.0	0.0	0.0	1.5		0.3

Intersection Summary	
HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	420	1976	53	237	844	160	104	179	178	164	120	221
Future Volume (veh/h)	420	1976	53	237	844	160	104	179	178	164	120	221
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	457	2148	58	258	917	174	113	195	193	178	130	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	517	2242	696	522	1964	876	201	209	177	204	517	
HCM 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
Prop Arrive On Green	0.15	0.44	0.44	0.26	0.55	0.55	0.11	0.11	0.11	0.11	0.28	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	60.2	44.0	19.8	35.9	17.0	14.0	54.2	96.3	123.7	82.5	33.9	0.0
Ln Grp LOS	E	D	B	D	B	B	D	F	F	F	C	
Approach Vol, veh/h		2663			1349			501			308	
Approach Delay, s/veh		46.2			20.2			97.4			62.0	
Approach LOS		D			C			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	6	5		8
Case No	2.0	3.0	2.0	5.3	3.0	1.3		3.0
Phs Duration (G+Y+Rc), s	24.4	73.6	19.8	21.0	60.0	38.1		40.8
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 23	* 43	14.0	13.4	* 53	* 13		33.4
Max Allow Headway (MAH), s	2.5	3.5	3.8	2.7	3.6	1.3		3.4
Max Q Clear (g_c+I1), s	17.6	20.7	13.8	14.4	50.9	11.9		8.5
Green Ext Time (g_e), s	0.4	3.6	0.0	0.0	1.5	0.0		0.3
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.08	0.00	1.00	1.00	0.00	1.00		0.00

Left-Turn Movement Data								
Assigned Mvmt	1		3	7		5		
Mvmt Sat Flow, veh/h	3456		1781	1260		1781		

Through Movement Data								
Assigned Mvmt		2		4	6			8
Mvmt Sat Flow, veh/h		3554		1870	5106			1870

Right-Turn Movement Data								
Assigned Mvmt		12		14	16			18
Mvmt Sat Flow, veh/h		1585		1585	1585			1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L (Prot)	L		L (Pr/Pm)		

Lanes in Grp	2	0	1	1	0	1	0	0
Grp Vol (v), veh/h	457	0	178	113	0	258	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1260	0	1781	0	0
Q Serve Time (g_s), s	15.6	0.0	11.8	10.5	0.0	9.9	0.0	0.0
Cycle Q Clear Time (g_c), s	15.6	0.0	11.8	10.5	0.0	9.9	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1260	0	176	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	13.4	0.0	52.7	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	13.4	0.0	3.8	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	10.5	0.0	3.8	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	517	0	204	201	0	522	0	0
V/C Ratio (X)	0.88	0.00	0.87	0.56	0.00	0.49	0.00	0.00
Avail Cap (c_a), veh/h	648	0	208	201	0	522	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	50.0	0.0	52.2	52.0	0.0	35.6	0.0	0.0
Incr Delay (d2), s/veh	10.2	0.0	30.3	2.2	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	60.2	0.0	82.5	54.2	0.0	35.9	0.0	0.0
1st-Term Q (Q1), veh/ln	6.5	0.0	5.3	3.3	0.0	6.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.7	0.0	1.7	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	7.2	0.0	7.0	3.4	0.0	6.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.42	0.00	0.78	0.55	0.00	0.57	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	917	0	195	2148	0	0	130
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	18.7	0.0	12.4	48.9	0.0	0.0	6.5
Cycle Q Clear Time (g_c), s	0.0	18.7	0.0	12.4	48.9	0.0	0.0	6.5
Lane Grp Cap (c), veh/h	0	1964	0	209	2242	0	0	517
V/C Ratio (X)	0.00	0.47	0.00	0.93	0.96	0.00	0.00	0.25
Avail Cap (c_a), veh/h	0	1964	0	209	2242	0	0	521
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.2	0.0	52.9	32.6	0.0	0.0	33.8
Incr Delay (d2), s/veh	0.0	0.8	0.0	43.4	11.4	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.0	0.0	96.3	44.0	0.0	0.0	33.9
1st-Term Q (Q1), veh/ln	0.0	6.9	0.0	5.8	18.4	0.0	0.0	3.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	2.5	2.4	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.1	0.0	8.3	20.8	0.0	0.0	3.0
%ile Storage Ratio (RQ%)	0.00	0.14	0.00	0.33	0.43	0.00	0.00	0.33
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	174	0	193	58	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	6.6	0.0	10.0	2.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	6.6	0.0	10.0	2.6	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	876	0	177	696	0	0	438
V/C Ratio (X)	0.00	0.20	0.00	1.09	0.08	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	876	0	177	696	0	0	441
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.5	0.0	29.8	19.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	93.9	0.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.0	0.0	123.7	19.8	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.3	0.0	3.8	0.9	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	4.6	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	8.5	0.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.23	0.00	1.34	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1963	389	247	921	1	391	17	231	121	179	478
Future Volume (veh/h)	19	1963	389	247	921	1	391	17	231	121	179	478
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	2134	423	268	1001	1	425	18	251	132	195	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1529	3876	1203	284	1670	745	455	504	225	186	234	
Arrive On Green	0.44	0.76	0.76	0.16	0.47	0.47	0.13	0.14	0.14	0.05	0.07	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	21	2134	423	268	1001	1	425	18	251	132	195	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.4	20.8	10.5	17.9	24.9	0.1	14.6	0.5	17.0	4.5	6.5	0.0
Cycle Q Clear(g_c), s	0.4	20.8	10.5	17.9	24.9	0.1	14.6	0.5	17.0	4.5	6.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1529	3876	1203	284	1670	745	455	504	225	186	234	
V/C Ratio(X)	0.01	0.55	0.35	0.95	0.60	0.00	0.93	0.04	1.12	0.71	0.83	
Avail Cap(c_a), veh/h	1529	3876	1203	284	1670	745	455	504	225	392	234	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.8	6.0	4.7	49.9	23.5	30.1	51.6	44.4	51.5	55.8	55.4	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.8	38.5	1.6	0.0	26.2	0.0	94.5	1.9	20.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.4	3.2	10.7	10.0	0.0	8.0	0.2	12.6	2.0	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	6.5	5.6	88.4	25.1	30.1	77.8	44.4	146.0	57.7	76.3	0.0
LnGrp LOS	B	A	A	F	C	C	E	D	F	E	E	
Approach Vol, veh/h		2578			1270			694			327	A
Approach Delay, s/veh		6.5			38.4			101.6			68.8	
Approach LOS		A			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	62.0	63.0	12.9	24.1	25.0	100.0	22.0	15.0
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 7.1	5.9	* 7.7	* 6.2	7.1
Max Green Setting (Gmax), s	12.3	* 56	13.6	* 11	19.1	* 52	* 16	7.9
Max Q Clear Time (g_c+I1), s	12.4	26.9	6.5	19.0	19.9	22.8	16.6	8.5
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.0	12.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1963	389	247	921	1	391	17	231	121	179	478
Future Volume (veh/h)	19	1963	389	247	921	1	391	17	231	121	179	478
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	2134	423	268	1001	1	425	18	251	132	195	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	1529	3876	1203	284	1670	745	455	504	225	186	234	
HCM 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
Prop Arrive On Green	0.44	0.76	0.76	0.16	0.47	0.47	0.13	0.14	0.14	0.05	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.8	6.5	5.6	88.4	25.1	30.1	77.8	44.4	146.0	57.7	76.3	0.0
Ln Grp LOS	B	A	A	F	C	C	E	D	F	E	E	
Approach Vol, veh/h		2578			1270			694			327	
Approach Delay, s/veh		6.5			38.4			101.6			68.8	
Approach LOS		A			D			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	3	4	5	6	7	8
Case No	3.0	2.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	63.0	62.0	12.9	24.1	25.0	100.0	22.0	15.0
Change Period (Y+Rc), s	* 6.6	7.7	6.4	* 7.1	5.9	* 7.7	* 6.2	7.1
Max Green (Gmax), s	* 56	12.3	13.6	* 11	19.1	* 52	* 16	7.9
Max Allow Headway (MAH), s	3.6	1.3	1.6	2.3	1.3	3.5	1.4	3.1
Max Q Clear (g_c+I1), s	26.9	2.4	6.5	19.0	19.9	22.8	16.6	8.5
Green Ext Time (g_e), s	3.9	0.0	0.0	0.0	0.0	12.6	0.0	0.0
Prob of Phs Call (p_c)	1.00	0.50	0.99	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt		1	3		5		7	
Mvmt Sat Flow, veh/h		3456	3456		1781		3456	

Through Movement Data								
Assigned Mvmt	2			4		6		8
Mvmt Sat Flow, veh/h	3554			3554		5106		3554

Right-Turn Movement Data								
Assigned Mvmt	12			14		16		18
Mvmt Sat Flow, veh/h	1585			1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	0	1	3	0	5	0	7	0
Lane Assignment		L (Prot)	L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	0	2	2	0	1	0	2	0
Grp Vol (v), veh/h	0	21	132	0	268	0	425	0
Grp Sat Flow (s), veh/h/ln	0	1728	1728	0	1781	0	1728	0
Q Serve Time (g_s), s	0.0	0.4	4.5	0.0	17.9	0.0	14.6	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	4.5	0.0	17.9	0.0	14.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	1529	186	0	284	0	455	0
V/C Ratio (X)	0.00	0.01	0.71	0.00	0.95	0.00	0.93	0.00
Avail Cap (c_a), veh/h	0	1529	392	0	284	0	455	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	18.8	55.8	0.0	49.9	0.0	51.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.9	0.0	38.5	0.0	26.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.8	57.7	0.0	88.4	0.0	77.8	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	2.0	0.0	7.6	0.0	6.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	3.0	0.0	1.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.2	2.0	0.0	10.7	0.0	8.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.22	0.00	1.20	0.00	0.78	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	0	8
Lane Assignment	T			T		T		T
Lanes in Grp	2	0	0	2	0	3	0	2
Grp Vol (v), veh/h	1001	0	0	18	0	2134	0	195
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	0	1777
Q Serve Time (g_s), s	24.9	0.0	0.0	0.5	0.0	20.8	0.0	6.5
Cycle Q Clear Time (g_c), s	24.9	0.0	0.0	0.5	0.0	20.8	0.0	6.5
Lane Grp Cap (c), veh/h	1670	0	0	504	0	3876	0	234
V/C Ratio (X)	0.60	0.00	0.00	0.04	0.00	0.55	0.00	0.83
Avail Cap (c_a), veh/h	1670	0	0	504	0	3876	0	234
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	23.5	0.0	0.0	44.4	0.0	6.0	0.0	55.4
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.0	0.0	0.6	0.0	20.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	25.1	0.0	0.0	44.4	0.0	6.5	0.0	76.3
1st-Term Q (Q1), veh/ln	9.7	0.0	0.0	0.2	0.0	5.2	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.7

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	10.0	0.0	0.0	0.2	0.0	5.4	0.0	3.6
%ile Storage Ratio (RQ%)	0.24	0.00	0.00	0.01	0.00	0.28	0.00	0.12
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	0	18
Lane Assignment	R			R		R		R
Lanes in Grp	1	0	0	1	0	1	0	1
Grp Vol (v), veh/h	1	0	0	251	0	423	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.1	0.0	0.0	17.0	0.0	10.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.1	0.0	0.0	17.0	0.0	10.5	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	745	0	0	225	0	1203	0	104
V/C Ratio (X)	0.00	0.00	0.00	1.12	0.00	0.35	0.00	0.00
Avail Cap (c_a), veh/h	745	0	0	225	0	1203	0	104
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	30.1	0.0	0.0	51.5	0.0	4.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	94.5	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	30.1	0.0	0.0	146.0	0.0	5.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.7	0.0	3.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	5.9	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	12.6	0.0	3.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	1.24	0.00	0.36	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	1290	205	193	799	333	327	110	217	310	99	121
Future Volume (veh/h)	143	1290	205	193	799	333	327	110	217	310	99	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	155	1402	223	210	868	362	355	120	236	337	108	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	182	1491	665	266	1402	625	412	91	178	383	285	242
Arrive On Green	0.10	0.42	0.42	0.08	0.39	0.39	0.12	0.16	0.16	0.11	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	563	1108	3456	1870	1585
Grp Volume(v), veh/h	155	1402	223	210	868	362	355	0	356	337	108	132
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	0	1671	1728	1870	1585
Q Serve(g_s), s	10.3	45.4	11.4	7.2	23.5	21.5	12.1	0.0	19.3	11.5	6.2	9.2
Cycle Q Clear(g_c), s	10.3	45.4	11.4	7.2	23.5	21.5	12.1	0.0	19.3	11.5	6.2	9.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	182	1491	665	266	1402	625	412	0	269	383	285	242
V/C Ratio(X)	0.85	0.94	0.34	0.79	0.62	0.58	0.86	0.00	1.32	0.88	0.38	0.55
Avail Cap(c_a), veh/h	276	1491	665	363	1402	625	527	0	269	383	285	242
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.0	33.4	23.5	54.4	29.1	28.5	51.9	0.0	50.4	52.6	45.7	47.0
Incr Delay (d2), s/veh	9.6	12.8	1.4	5.4	2.1	3.9	9.5	0.0	169.6	20.3	0.3	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	20.7	4.5	3.2	9.8	8.8	5.8	0.0	20.8	6.1	2.9	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	46.2	24.9	59.8	31.2	32.4	61.4	0.0	220.0	72.9	46.0	48.5
LnGrp LOS	E	D	C	E	C	C	E	A	F	E	D	D
Approach Vol, veh/h		1780			1440			711			577	
Approach Delay, s/veh		45.0			35.7			140.8			62.3	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.7	54.3	20.0	26.0	16.6	57.4	21.0	25.0
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 19	41.0	* 13	* 19	* 13	47.0	* 18	* 14
Max Q Clear Time (g_c+I1), s	12.3	25.5	13.5	21.3	9.2	47.4	14.1	11.2
Green Ext Time (p_c), s	0.1	3.6	0.0	0.0	0.1	0.0	0.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	59.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	1290	205	193	799	333	327	110	217	310	99	121
Future Volume (veh/h)	143	1290	205	193	799	333	327	110	217	310	99	121
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	155	1402	223	210	868	362	355	120	236	337	108	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	182	1491	665	266	1402	625	412	91	178	383	285	242
HCM 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
Prop Arrive On Green	0.10	0.42	0.42	0.08	0.39	0.39	0.12	0.16	0.16	0.11	0.15	0.15
Unsig. Movement Delay												
Ln Grp Delay, s/veh	62.6	46.2	24.9	59.8	31.2	32.4	61.4	0.0	220.0	72.9	46.0	48.5
Ln Grp LOS	E	D	C	E	C	C	E	A	F	E	D	D
Approach Vol, veh/h		1780			1440			711			577	
Approach Delay, s/veh		45.0			35.7			140.8			62.3	
Approach LOS		D			D			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	4.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	19.7	54.3	20.0	26.0	16.6	57.4	21.0	25.0
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green (Gmax), s	* 19	41.0	* 13	* 19	* 13	47.0	* 18	* 14
Max Allow Headway (MAH), s	2.2	3.4	3.8	4.5	2.2	3.6	2.2	3.5
Max Q Clear (g_c+I1), s	12.3	25.5	13.5	21.3	9.2	47.4	14.1	11.2
Green Ext Time (g_e), s	0.1	3.6	0.0	0.0	0.1	0.0	0.2	0.2
Prob of Phs Call (p_c)	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	1.00	1.00	0.10	0.00	0.05	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	1781		3456		3456		3456	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3554		563		3554		1870

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1108		1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	1	0	2	0	2	0	2	0
Grp Vol (v), veh/h	155	0	337	0	210	0	355	0
Grp Sat Flow (s), veh/h/ln	1781	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	10.3	0.0	11.5	0.0	7.2	0.0	12.1	0.0
Cycle Q Clear Time (g_c), s	10.3	0.0	11.5	0.0	7.2	0.0	12.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	182	0	383	0	266	0	412	0
V/C Ratio (X)	0.85	0.00	0.88	0.00	0.79	0.00	0.86	0.00
Avail Cap (c_a), veh/h	276	0	383	0	363	0	527	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	53.0	0.0	52.6	0.0	54.4	0.0	51.9	0.0
Incr Delay (d2), s/veh	9.6	0.0	20.3	0.0	5.4	0.0	9.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	62.6	0.0	72.9	0.0	59.8	0.0	61.4	0.0
1st-Term Q (Q1), veh/ln	4.4	0.0	5.0	0.0	3.0	0.0	5.3	0.0
2nd-Term Q (Q2), veh/ln	0.5	0.0	1.1	0.0	0.2	0.0	0.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	4.9	0.0	6.1	0.0	3.2	0.0	5.8	0.0
%ile Storage Ratio (RQ%)	0.25	0.00	0.77	0.00	0.33	0.00	0.57	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		T
Lanes in Grp	0	2	0	0	0	2	0	1
Grp Vol (v), veh/h	0	868	0	0	0	1402	0	108
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	1870
Q Serve Time (g_s), s	0.0	23.5	0.0	0.0	0.0	45.4	0.0	6.2
Cycle Q Clear Time (g_c), s	0.0	23.5	0.0	0.0	0.0	45.4	0.0	6.2
Lane Grp Cap (c), veh/h	0	1402	0	0	0	1491	0	285
V/C Ratio (X)	0.00	0.62	0.00	0.00	0.00	0.94	0.00	0.38
Avail Cap (c_a), veh/h	0	1402	0	0	0	1491	0	285
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	29.1	0.0	0.0	0.0	33.4	0.0	45.7
Incr Delay (d2), s/veh	0.0	2.1	0.0	0.0	0.0	12.8	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	31.2	0.0	0.0	0.0	46.2	0.0	46.0
1st-Term Q (Q1), veh/ln	0.0	9.4	0.0	0.0	0.0	18.0	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	2.7	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	9.8	0.0	0.0	0.0	20.7	0.0	2.9
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.00	0.00	0.49	0.00	0.21
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	362	0	356	0	223	0	132
Grp Sat Flow (s), veh/h/ln	0	1585	0	1671	0	1585	0	1585
Q Serve Time (g_s), s	0.0	21.5	0.0	19.3	0.0	11.4	0.0	9.2
Cycle Q Clear Time (g_c), s	0.0	21.5	0.0	19.3	0.0	11.4	0.0	9.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.66	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	625	0	269	0	665	0	242
V/C Ratio (X)	0.00	0.58	0.00	1.32	0.00	0.34	0.00	0.55
Avail Cap (c_a), veh/h	0	625	0	269	0	665	0	242
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	28.5	0.0	50.4	0.0	23.5	0.0	47.0
Incr Delay (d2), s/veh	0.0	3.9	0.0	169.6	0.0	1.4	0.0	1.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	32.4	0.0	220.0	0.0	24.9	0.0	48.5
1st-Term Q (Q1), veh/ln	0.0	8.1	0.0	8.1	0.0	4.3	0.0	3.6
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	12.7	0.0	0.3	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	8.8	0.0	20.8	0.0	4.5	0.0	3.7
%ile Storage Ratio (RQ%)	0.00	0.91	0.00	1.12	0.00	0.22	0.00	0.95
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	21.8	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	59.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	134	0	1090	159	178	187
Future Volume (veh/h)	134	0	1090	159	178	187
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	0	1185	173	193	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	335	0	2353	1049	258	229
Arrive On Green	0.04	0.00	0.66	0.66	0.14	0.14
Sat Flow, veh/h	1781	146	3647	1585	1781	1585
Grp Volume(v), veh/h	146	8.7	1185	173	193	203
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	3.2		20.3	5.0	12.5	15.1
Cycle Q Clear(g_c), s	3.2		20.3	5.0	12.5	15.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	335		2353	1049	258	229
V/C Ratio(X)	0.44		0.50	0.16	0.75	0.88
Avail Cap(c_a), veh/h	451		2353	1049	371	330
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.4		10.3	7.7	49.2	50.3
Incr Delay (d2), s/veh	0.3		0.8	0.3	2.4	13.8
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0		6.9	1.6	5.7	6.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.7		11.1	8.0	51.6	64.2
LnGrp LOS	A		B	A	D	E
Approach Vol, veh/h			1358		396	
Approach Delay, s/veh			10.7		58.0	
Approach LOS			B		E	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	11.2	85.5				23.4
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	13.0	64.0				25.0
Max Q Clear Time (g_c+I1), s	5.2	22.3				17.1
Green Ext Time (p_c), s	0.1	4.2				0.3

Intersection Summary	
HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	134	0	1090	159	178	187
Future Volume (veh/h)	134	0	1090	159	178	187
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	0	1185	173	193	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	335	0	2353	1049	258	229
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.00	0.66	0.66	0.14	0.14
Unsig. Movement Delay						
Ln Grp Delay, s/veh	8.7	0.0	11.1	8.0	51.6	64.2
Ln Grp LOS	A	A	B	A	D	E
Approach Vol, veh/h		146	1358		396	
Approach Delay, s/veh		8.7	10.7		58.0	
Approach LOS		A	B		E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	11.2	85.5	23.4					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	64.0	25.0					
Max Allow Headway (MAH), s	2.2	3.2	2.4					
Max Q Clear (g_c+I1), s	5.2	22.3	17.1					
Green Ext Time (g_e), s	0.1	4.2	0.3					
Prob of Phs Call (p_c)	0.99	1.00	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	146	0	193	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	3.2	0.0	12.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.2	0.0	12.5	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	401	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	79.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	59.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	79.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	335	0	258	0	0	0	0	0
V/C Ratio (X)	0.44	0.00	0.75	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	451	0	371	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.4	0.0	49.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	2.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.7	0.0	51.6	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.33	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1185	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	20.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	20.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2353	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2353	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.3	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	6.9	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	173	203	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	5.0	15.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.0	15.1	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1049	229	0	0	0	0	0
V/C Ratio (X)	0.00	0.16	0.88	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1049	330	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.7	50.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	13.8	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.0	64.2	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.5	6.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.9	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.6	6.8	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.36	0.40	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		20.4						
HCM 6th LOS		C						

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	33	123	1	1	14	138	81	0	163	8
Future Vol, veh/h	6	2	33	123	1	1	14	138	81	0	163	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	2	36	134	1	1	15	150	88	0	177	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	288	450	93	314	410	119	186	0	0	238	0	0
Stage 1	182	182	-	224	224	-	-	-	-	-	-	-
Stage 2	106	268	-	90	186	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	642	503	946	615	530	910	1386	-	-	1326	-	-
Stage 1	802	748	-	758	717	-	-	-	-	-	-	-
Stage 2	888	686	-	907	745	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	635	497	946	585	524	910	1386	-	-	1326	-	-
Mov Cap-2 Maneuver	635	497	-	585	524	-	-	-	-	-	-	-
Stage 1	793	748	-	750	709	-	-	-	-	-	-	-
Stage 2	876	678	-	870	745	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	13	0.5	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1386	-	-	635	900	585	665	1326	-	-
HCM Lane V/C Ratio	0.011	-	-	0.01	0.042	0.229	0.003	-	-	-
HCM Control Delay (s)	7.6	-	-	10.7	9.2	13	10.4	0	-	-
HCM Lane LOS	A	-	-	B	A	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.9	0	0	-	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	94	52	69	0	1	102
Future Vol, veh/h	94	52	69	0	1	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	102	57	75	0	1	111

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	75	0	-	0	308	38
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	233	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1522	-	-	-	660	1026
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	784	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1522	-	-	-	616	1026
Mov Cap-2 Maneuver	-	-	-	-	616	-
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	784	-

Approach	EB	WB	SB
HCM Control Delay, s	4.9	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1522	-	-	-	1019
HCM Lane V/C Ratio	0.067	-	-	-	0.11
HCM Control Delay (s)	7.5	-	-	-	9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1	9	56	2	1	6	43	45	0	37	1
Future Vol, veh/h	8	1	9	56	2	1	6	43	45	0	37	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	1	10	61	2	1	7	47	49	0	40	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	128	151	41	132	127	72	41	0	0	96	0	0
Stage 1	41	41	-	86	86	-	-	-	-	-	-	-
Stage 2	87	110	-	46	41	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	845	741	1030	840	764	990	1568	-	-	1498	-	-
Stage 1	974	861	-	922	824	-	-	-	-	-	-	-
Stage 2	921	804	-	968	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	839	737	1030	828	760	990	1568	-	-	1498	-	-
Mov Cap-2 Maneuver	839	737	-	828	760	-	-	-	-	-	-	-
Stage 1	969	861	-	917	820	-	-	-	-	-	-	-
Stage 2	913	800	-	958	861	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	9.7	0.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1568	-	-	917	828	1498	-	-
HCM Lane V/C Ratio	0.004	-	-	0.021	0.077	-	-	-
HCM Control Delay (s)	7.3	0	-	9	9.7	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	77	35	0	7	18	214	21	2	375	1
Future Vol, veh/h	4	0	77	35	0	7	18	214	21	2	375	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	84	38	0	8	20	233	23	2	408	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	702	709	409	740	698	245	409	0	0	256	0	0
Stage 1	413	413	-	285	285	-	-	-	-	-	-	-
Stage 2	289	296	-	455	413	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	353	359	642	333	364	794	1150	-	-	1309	-	-
Stage 1	616	594	-	722	676	-	-	-	-	-	-	-
Stage 2	719	668	-	585	594	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	344	351	642	285	356	794	1150	-	-	1309	-	-
Mov Cap-2 Maneuver	344	351	-	285	356	-	-	-	-	-	-	-
Stage 1	604	593	-	708	662	-	-	-	-	-	-	-
Stage 2	698	655	-	508	593	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	18.2	0.6	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1150	-	-	616	319	1309	-	-
HCM Lane V/C Ratio	0.017	-	-	0.143	0.143	0.002	-	-
HCM Control Delay (s)	8.2	0	-	11.8	18.2	7.8	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.5	0	-	-

2: Highland Blvd & 11800 North

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	115	141	0	82	37	169	12	136	339	3
Future Volume (veh/h)	6	0	115	141	0	82	37	169	12	136	339	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	0	125	153	0	89	40	184	13	148	368	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	511	0	392	478	0	392	428	591	42	559	634	5
Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1308	0	1585	1266	0	1585	1011	1726	122	1186	1853	15
Grp Volume(v), veh/h	7	0	125	153	0	89	40	0	197	148	0	371
Grp Sat Flow(s),veh/h/ln	1308	0	1585	1266	0	1585	1011	0	1848	1186	0	1868
Q Serve(g_s), s	0.1	0.0	1.9	3.3	0.0	1.3	1.0	0.0	2.3	3.1	0.0	4.8
Cycle Q Clear(g_c), s	1.4	0.0	1.9	5.2	0.0	1.3	5.8	0.0	2.3	5.4	0.0	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.01
Lane Grp Cap(c), veh/h	511	0	392	478	0	392	428	0	633	559	0	639
V/C Ratio(X)	0.01	0.00	0.32	0.32	0.00	0.23	0.09	0.00	0.31	0.26	0.00	0.58
Avail Cap(c_a), veh/h	1665	0	1790	1594	0	1790	1639	0	2846	1979	0	2876
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.3	0.0	9.0	11.1	0.0	8.8	10.3	0.0	7.1	9.1	0.0	7.9
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	0.7	0.0	0.3	0.2	0.0	0.6	0.5	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	0.0	9.2	11.2	0.0	8.9	10.3	0.0	7.2	9.1	0.0	8.2
LnGrp LOS	A	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		132			242			237			519	
Approach Delay, s/veh		9.2			10.4			7.7			8.5	
Approach LOS		A			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	16.0	13.2	16.0	13.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	45.0	33.0	45.0	33.0
Max Q Clear Time (g_c+I1), s	7.8	3.9	7.4	7.2
Green Ext Time (p_c), s	0.6	0.4	1.3	0.4

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	115	141	0	82	37	169	12	136	339	3
Future Volume (veh/h)	6	0	115	141	0	82	37	169	12	136	339	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	0	125	153	0	89	40	184	13	148	368	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	511	0	392	478	0	392	428	591	42	559	634	5
HCM 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
Prop Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.34	0.34	0.34	0.34	0.34	0.34
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.3	0.0	9.2	11.2	0.0	8.9	10.3	0.0	7.2	9.1	0.0	8.2
Ln Grp LOS	A	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		132			242			237			519	
Approach Delay, s/veh		9.2			10.4			7.7			8.5	
Approach LOS		A			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		16.0		13.2		16.0		13.2
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		45.0		33.0		45.0		33.0
Max Allow Headway (MAH), s		3.7		4.0		3.5		3.1
Max Q Clear (g_c+I1), s		7.8		3.9		7.4		7.2
Green Ext Time (g_e), s		0.6		0.4		1.3		0.4
Prob of Phs Call (p_c)		1.00		0.95		1.00		0.95
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1011		1308		1186		1266
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1726		0		1853		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		122		1585		15		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	40	0	7	0	148	0	153
Grp Sat Flow (s), veh/h/ln	0	1011	0	1308	0	1186	0	1266
Q Serve Time (g_s), s	0.0	1.0	0.0	0.1	0.0	3.1	0.0	3.3
Cycle Q Clear Time (g_c), s	0.0	5.8	0.0	1.4	0.0	5.4	0.0	5.2
Perm LT Sat Flow (s_l), veh/h/ln	0	1011	0	1308	0	1186	0	1266
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	10.0	0.0	7.2	0.0	10.0	0.0	7.2
Perm LT Serve Time (g_u), s	0.0	5.2	0.0	5.9	0.0	7.7	0.0	5.3
Perm LT Q Serve Time (g_ps), s	0.0	1.0	0.0	0.1	0.0	3.1	0.0	3.3
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	428	0	511	0	559	0	478
V/C Ratio (X)	0.00	0.09	0.00	0.01	0.00	0.26	0.00	0.32
Avail Cap (c_a), veh/h	0	1639	0	1665	0	1979	0	1594
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.3	0.0	9.3	0.0	9.1	0.0	11.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.3	0.0	9.3	0.0	9.1	0.0	11.2
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.01	0.00	0.14	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	197	0	125	0	371	0	89
Grp Sat Flow (s), veh/h/ln	0	1848	0	1585	0	1868	0	1585
Q Serve Time (g_s), s	0.0	2.3	0.0	1.9	0.0	4.8	0.0	1.3
Cycle Q Clear Time (g_c), s	0.0	2.3	0.0	1.9	0.0	4.8	0.0	1.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.07	0.00	1.00	0.00	0.01	0.00	1.00
Lane Grp Cap (c), veh/h	0	633	0	392	0	639	0	392
V/C Ratio (X)	0.00	0.31	0.00	0.32	0.00	0.58	0.00	0.23
Avail Cap (c_a), veh/h	0	2846	0	1790	0	2876	0	1790
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.1	0.0	9.0	0.0	7.9	0.0	8.8
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.3	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.2	0.0	9.2	0.0	8.2	0.0	8.9
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.4	0.0	1.1	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	0.5	0.0	1.2	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.03	0.00	0.02	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	1118	50	169	770	78	62	63	68	139	91	231
Future Volume (veh/h)	242	1118	50	169	770	78	62	63	68	139	91	231
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	263	1215	54	184	837	85	67	68	74	151	99	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	332	1619	502	520	1617	721	165	134	114	184	439	
Arrive On Green	0.10	0.32	0.32	0.23	0.46	0.46	0.07	0.07	0.07	0.10	0.23	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1296	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	263	1215	54	184	837	85	67	68	74	151	99	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1296	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.4	21.3	2.4	1.6	16.8	3.1	5.1	3.5	2.7	8.3	4.3	0.0
Cycle Q Clear(g_c), s	7.4	21.3	2.4	1.6	16.8	3.1	5.1	3.5	2.7	8.3	4.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	332	1619	502	520	1617	721	165	134	114	184	439	
V/C Ratio(X)	0.79	0.75	0.11	0.35	0.52	0.12	0.41	0.51	0.65	0.82	0.23	
Avail Cap(c_a), veh/h	467	1619	502	520	1617	721	220	213	181	285	625	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.2	30.6	24.1	28.8	19.4	15.7	45.4	44.7	16.1	43.9	30.9	0.0
Incr Delay (d2), s/veh	3.9	3.3	0.4	0.2	1.2	0.3	0.6	1.1	2.3	10.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	8.5	0.9	3.3	6.5	1.2	1.6	1.7	1.8	4.2	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.2	33.9	24.6	28.9	20.6	16.0	46.0	45.8	18.4	54.4	31.0	0.0
LnGrp LOS	D	C	C	C	C	B	D	D	B	D	C	
Approach Vol, veh/h		1532			1106			209			250	A
Approach Delay, s/veh		36.0			21.6			36.2			45.1	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	16.1	52.8	16.3	14.8	29.9	39.0		31.1
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 14	* 32	16.0	11.4	* 14	* 32		33.4
Max Q Clear Time (g_c+I1), s	9.4	18.8	10.3	7.1	3.6	23.3		6.3
Green Ext Time (p_c), s	0.2	2.7	0.2	0.1	0.0	3.3		0.2

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	1118	50	169	770	78	62	63	68	139	91	231
Future Volume (veh/h)	242	1118	50	169	770	78	62	63	68	139	91	231
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	263	1215	54	184	837	85	67	68	74	151	99	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	332	1619	502	520	1617	721	165	134	114	184	439	
HCM 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
Prop Arrive On Green	0.10	0.32	0.32	0.23	0.46	0.46	0.07	0.07	0.07	0.10	0.23	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	48.2	33.9	24.6	28.9	20.6	16.0	46.0	45.8	18.4	54.4	31.0	0.0
Ln Grp LOS	D	C	C	C	C	B	D	D	B	D	C	
Approach Vol, veh/h		1532			1106			209			250	
Approach Delay, s/veh		36.0			21.6			36.2			45.1	
Approach LOS		D			C			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	6	5		8
Case No	2.0	3.0	2.0	5.3	3.0	1.3		3.0
Phs Duration (G+Y+Rc), s	16.1	52.8	16.3	14.8	39.0	29.9		31.1
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 14	* 32	16.0	11.4	* 32	* 14		33.4
Max Allow Headway (MAH), s	2.5	3.5	3.8	2.6	3.6	1.3		3.4
Max Q Clear (g_c+I1), s	9.4	18.8	10.3	7.1	23.3	3.6		6.3
Green Ext Time (g_e), s	0.2	2.7	0.2	0.1	3.3	0.0		0.2
Prob of Phs Call (p_c)	1.00	1.00	0.98	1.00	1.00	0.99		1.00
Prob of Max Out (p_x)	0.11	0.00	0.19	0.12	0.00	0.01		0.00

Left-Turn Movement Data								
Assigned Mvmt	1		3	7		5		
Mvmt Sat Flow, veh/h	3456		1781	1296		1781		

Through Movement Data								
Assigned Mvmt		2		4	6			8
Mvmt Sat Flow, veh/h		3554		1870	5106			1870

Right-Turn Movement Data								
Assigned Mvmt		12		14	16			18
Mvmt Sat Flow, veh/h		1585		1585	1585			1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L (Prot)	L		L (Pr/Pm)		

Lanes in Grp	2	0	1	1	0	1	0	0
Grp Vol (v), veh/h	263	0	151	67	0	184	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1296	0	1781	0	0
Q Serve Time (g_s), s	7.4	0.0	8.3	5.1	0.0	1.6	0.0	0.0
Cycle Q Clear Time (g_c), s	7.4	0.0	8.3	5.1	0.0	1.6	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1296	0	437	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	7.2	0.0	31.7	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	7.2	0.0	10.4	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	5.1	0.0	10.4	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	332	0	184	165	0	520	0	0
V/C Ratio (X)	0.79	0.00	0.82	0.41	0.00	0.35	0.00	0.00
Avail Cap (c_a), veh/h	467	0	285	220	0	520	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	44.2	0.0	43.9	45.4	0.0	28.8	0.0	0.0
Incr Delay (d2), s/veh	3.9	0.0	10.5	0.6	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	48.2	0.0	54.4	46.0	0.0	28.9	0.0	0.0
1st-Term Q (Q1), veh/ln	3.0	0.0	3.6	1.6	0.0	3.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.5	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	3.2	0.0	4.2	1.6	0.0	3.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.19	0.00	0.46	0.26	0.00	0.31	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	837	0	68	1215	0	0	99
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	16.8	0.0	3.5	21.3	0.0	0.0	4.3
Cycle Q Clear Time (g_c), s	0.0	16.8	0.0	3.5	21.3	0.0	0.0	4.3
Lane Grp Cap (c), veh/h	0	1617	0	134	1619	0	0	439
V/C Ratio (X)	0.00	0.52	0.00	0.51	0.75	0.00	0.00	0.23
Avail Cap (c_a), veh/h	0	1617	0	213	1619	0	0	625
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.4	0.0	44.7	30.6	0.0	0.0	30.9
Incr Delay (d2), s/veh	0.0	1.2	0.0	1.1	3.3	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.6	0.0	45.8	33.9	0.0	0.0	31.0
1st-Term Q (Q1), veh/ln	0.0	6.2	0.0	1.6	8.1	0.0	0.0	1.9
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.5	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.5	0.0	1.7	8.5	0.0	0.0	1.9
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.07	0.18	0.00	0.00	0.22
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	85	0	74	54	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	3.1	0.0	2.7	2.4	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.1	0.0	2.7	2.4	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	721	0	114	502	0	0	372
V/C Ratio (X)	0.00	0.12	0.00	0.65	0.11	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	721	0	181	502	0	0	529
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	15.7	0.0	16.1	24.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	2.3	0.4	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.0	0.0	18.4	24.6	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	1.7	0.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	1.8	0.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.29	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1103	314	393	660	10	429	57	159	28	135	108
Future Volume (veh/h)	63	1103	314	393	660	10	429	57	159	28	135	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1199	341	427	717	11	466	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	487	1363	423	454	1329	593	511	635	283	98	217	
Arrive On Green	0.14	0.27	0.27	0.26	0.37	0.37	0.15	0.18	0.18	0.03	0.06	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	68	1199	341	427	717	11	466	62	173	30	147	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.7	22.5	20.1	23.5	15.8	0.3	13.3	1.5	10.1	0.9	4.1	0.0
Cycle Q Clear(g_c), s	1.7	22.5	20.1	23.5	15.8	0.3	13.3	1.5	10.1	0.9	4.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	487	1363	423	454	1329	593	511	635	283	98	217	
V/C Ratio(X)	0.14	0.88	0.81	0.94	0.54	0.02	0.91	0.10	0.61	0.31	0.68	
Avail Cap(c_a), veh/h	487	1363	423	465	1329	593	511	635	283	470	281	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.6	35.1	34.2	36.5	24.5	11.0	42.0	34.3	37.9	47.6	46.0	0.0
Incr Delay (d2), s/veh	0.0	8.4	15.1	26.6	1.6	0.1	20.1	0.0	2.8	0.7	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	9.7	9.4	12.8	6.4	0.2	7.0	0.6	4.1	0.4	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	43.5	49.3	63.1	26.1	11.1	62.0	34.3	40.6	48.3	48.1	0.0
LnGrp LOS	D	D	D	E	C	B	E	C	D	D	D	
Approach Vol, veh/h		1608			1155			701			177	A
Approach Delay, s/veh		44.5			39.6			54.3			48.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.8	44.0	9.2	25.0	31.4	34.4	21.0	13.2
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 7.1	5.9	* 7.7	* 6.2	7.1
Max Green Setting (Gmax), s	12.3	* 37	13.6	* 9.9	26.1	* 26	* 15	7.9
Max Q Clear Time (g_c+I1), s	13.7	17.8	2.9	12.1	25.5	24.5	15.3	6.1
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.0	0.6	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1103	314	393	660	10	429	57	159	28	135	108
Future Volume (veh/h)	63	1103	314	393	660	10	429	57	159	28	135	108
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1199	341	427	717	11	466	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	487	1363	423	454	1329	593	511	635	283	98	217	
HCM 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
Prop Arrive On Green	0.14	0.27	0.27	0.26	0.37	0.37	0.15	0.18	0.18	0.03	0.06	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	37.7	43.5	49.3	63.1	26.1	11.1	62.0	34.3	40.6	48.3	48.1	0.0
Ln Grp LOS	D	D	D	E	C	B	E	C	D	D	D	
Approach Vol, veh/h		1608			1155			701			177	
Approach Delay, s/veh		44.5			39.6			54.3			48.1	
Approach LOS		D			D			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	3	4	5	6	7	8
Case No	3.0	2.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	44.0	21.8	9.2	25.0	31.4	34.4	21.0	13.2
Change Period (Y+Rc), s	* 6.6	7.7	6.4	* 7.1	5.9	* 7.7	* 6.2	7.1
Max Green (Gmax), s	* 37	12.3	13.6	* 9.9	26.1	* 26	* 15	7.9
Max Allow Headway (MAH), s	3.6	1.3	1.6	2.6	1.3	3.4	1.4	3.1
Max Q Clear (g_c+I1), s	17.8	3.7	2.9	12.1	25.5	24.5	15.3	6.1
Green Ext Time (g_e), s	2.4	0.0	0.0	0.0	0.0	0.6	0.0	0.1
Prob of Phs Call (p_c)	1.00	0.85	0.57	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt		1	3		5		7	
Mvmt Sat Flow, veh/h		3456	3456		1781		3456	

Through Movement Data								
Assigned Mvmt	2			4		6		8
Mvmt Sat Flow, veh/h	3554			3554		5106		3554

Right-Turn Movement Data								
Assigned Mvmt	12			14		16		18
Mvmt Sat Flow, veh/h	1585			1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	0	1	3	0	5	0	7	0
Lane Assignment		L (Prot)	L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	0	2	2	0	1	0	2	0
Grp Vol (v), veh/h	0	68	30	0	427	0	466	0
Grp Sat Flow (s), veh/h/ln	0	1728	1728	0	1781	0	1728	0
Q Serve Time (g_s), s	0.0	1.7	0.9	0.0	23.5	0.0	13.3	0.0
Cycle Q Clear Time (g_c), s	0.0	1.7	0.9	0.0	23.5	0.0	13.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	487	98	0	454	0	511	0
V/C Ratio (X)	0.00	0.14	0.31	0.00	0.94	0.00	0.91	0.00
Avail Cap (c_a), veh/h	0	487	470	0	465	0	511	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	37.6	47.6	0.0	36.5	0.0	42.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.0	26.6	0.0	20.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	37.7	48.3	0.0	63.1	0.0	62.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.7	0.4	0.0	9.5	0.0	5.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	3.4	0.0	1.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.4	0.0	12.8	0.0	7.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.04	0.00	1.45	0.00	0.69	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	0	8
Lane Assignment	T			T		T		T
Lanes in Grp	2	0	0	2	0	3	0	2
Grp Vol (v), veh/h	717	0	0	62	0	1199	0	147
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	0	1777
Q Serve Time (g_s), s	15.8	0.0	0.0	1.5	0.0	22.5	0.0	4.1
Cycle Q Clear Time (g_c), s	15.8	0.0	0.0	1.5	0.0	22.5	0.0	4.1
Lane Grp Cap (c), veh/h	1329	0	0	635	0	1363	0	217
V/C Ratio (X)	0.54	0.00	0.00	0.10	0.00	0.88	0.00	0.68
Avail Cap (c_a), veh/h	1329	0	0	635	0	1363	0	281
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	24.5	0.0	0.0	34.3	0.0	35.1	0.0	46.0
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.0	0.0	8.4	0.0	2.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.1	0.0	0.0	34.3	0.0	43.5	0.0	48.1
1st-Term Q (Q1), veh/ln	6.1	0.0	0.0	0.6	0.0	8.7	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.0	0.0	0.0	1.1	0.0	0.1

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	6.4	0.0	0.0	0.6	0.0	9.7	0.0	1.8
%ile Storage Ratio (RQ%)	0.15	0.00	0.00	0.03	0.00	0.53	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	0	18
Lane Assignment	R			R		R		R
Lanes in Grp	1	0	0	1	0	1	0	1
Grp Vol (v), veh/h	11	0	0	173	0	341	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.3	0.0	0.0	10.1	0.0	20.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.3	0.0	0.0	10.1	0.0	20.1	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	593	0	0	283	0	423	0	97
V/C Ratio (X)	0.02	0.00	0.00	0.61	0.00	0.81	0.00	0.00
Avail Cap (c_a), veh/h	593	0	0	283	0	423	0	125
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	11.0	0.0	0.0	37.9	0.0	34.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	2.8	0.0	15.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	11.1	0.0	0.0	40.6	0.0	49.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.2	0.0	0.0	3.9	0.0	7.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	1.8	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.2	0.0	0.0	4.1	0.0	9.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.02	0.00	0.00	0.40	0.00	1.06	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	874	279	166	624	305	344	99	161	352	113	137
Future Volume (veh/h)	107	874	279	166	624	305	344	99	161	352	113	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	950	303	180	678	332	374	108	175	383	123	149
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	1397	623	247	1363	608	437	240	204	446	245	208
Arrive On Green	0.08	0.39	0.39	0.07	0.38	0.38	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	116	950	303	180	678	332	374	108	175	383	123	149
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	6.4	22.1	14.3	5.1	14.5	16.3	10.6	5.3	10.8	10.9	6.1	9.0
Cycle Q Clear(g_c), s	6.4	22.1	14.3	5.1	14.5	16.3	10.6	5.3	10.8	10.9	6.1	9.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	144	1397	623	247	1363	608	437	240	204	446	245	208
V/C Ratio(X)	0.80	0.68	0.49	0.73	0.50	0.55	0.86	0.45	0.86	0.86	0.50	0.72
Avail Cap(c_a), veh/h	224	1397	623	435	1363	608	460	249	211	460	249	211
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	25.1	22.8	45.5	23.5	24.0	42.8	40.3	42.7	42.7	40.4	41.7
Incr Delay (d2), s/veh	5.4	2.7	2.7	1.5	1.3	3.5	13.3	0.5	26.2	14.0	0.6	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	9.0	5.7	2.1	5.8	6.6	5.3	2.5	5.7	5.5	2.8	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	27.8	25.5	47.0	24.8	27.5	56.1	40.8	68.9	56.7	41.0	51.1
LnGrp LOS	D	C	C	D	C	C	E	D	E	E	D	D
Approach Vol, veh/h		1369			1190			657			655	
Approach Delay, s/veh		29.2			28.9			57.0			52.5	
Approach LOS		C			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	45.4	19.6	19.6	14.5	46.3	19.3	19.8
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 13	33.0	* 13	* 13	* 13	33.0	* 13	* 13
Max Q Clear Time (g_c+I1), s	8.4	18.3	12.9	12.8	7.1	24.1	12.6	11.0
Green Ext Time (p_c), s	0.0	2.7	0.0	0.0	0.1	3.0	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	37.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	874	279	166	624	305	344	99	161	352	113	137
Future Volume (veh/h)	107	874	279	166	624	305	344	99	161	352	113	137
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	950	303	180	678	332	374	108	175	383	123	149
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	144	1397	623	247	1363	608	437	240	204	446	245	208
HCM 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
Prop Arrive On Green	0.08	0.39	0.39	0.07	0.38	0.38	0.13	0.13	0.13	0.13	0.13	0.13
Unsig. Movement Delay												
Ln Grp Delay, s/veh	50.6	27.8	25.5	47.0	24.8	27.5	56.1	40.8	68.9	56.7	41.0	51.1
Ln Grp LOS	D	C	C	D	C	C	E	D	E	E	D	D
Approach Vol, veh/h		1369			1190			657			655	
Approach Delay, s/veh		29.2			28.9			57.0			52.5	
Approach LOS		C			C			E			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	15.5	45.4	19.6	19.6	14.5	46.3	19.3	19.8
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green (Gmax), s	* 13	33.0	* 13	* 13	* 13	33.0	* 13	* 13
Max Allow Headway (MAH), s	2.2	3.4	2.3	3.5	2.2	3.5	2.2	3.5
Max Q Clear (g_c+I1), s	8.4	18.3	12.9	12.8	7.1	24.1	12.6	11.0
Green Ext Time (g_e), s	0.0	2.7	0.0	0.0	0.1	3.0	0.0	0.2
Prob of Phs Call (p_c)	0.96	1.00	1.00	1.00	0.99	1.00	1.00	1.00
Prob of Max Out (p_x)	0.02	0.00	1.00	1.00	0.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	1781		3456		3456		3456	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3554		1870		3554		1870

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	1	0	2	0	2	0	2	0
Grp Vol (v), veh/h	116	0	383	0	180	0	374	0
Grp Sat Flow (s), veh/h/ln	1781	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	6.4	0.0	10.9	0.0	5.1	0.0	10.6	0.0
Cycle Q Clear Time (g_c), s	6.4	0.0	10.9	0.0	5.1	0.0	10.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	144	0	446	0	247	0	437	0
V/C Ratio (X)	0.80	0.00	0.86	0.00	0.73	0.00	0.86	0.00
Avail Cap (c_a), veh/h	224	0	460	0	435	0	460	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	45.2	0.0	42.7	0.0	45.5	0.0	42.8	0.0
Incr Delay (d2), s/veh	5.4	0.0	14.0	0.0	1.5	0.0	13.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	50.6	0.0	56.7	0.0	47.0	0.0	56.1	0.0
1st-Term Q (Q1), veh/ln	2.7	0.0	4.6	0.0	2.1	0.0	4.5	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.9	0.0	0.1	0.0	0.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.9	0.0	5.5	0.0	2.1	0.0	5.3	0.0
%ile Storage Ratio (RQ%)	0.15	0.00	0.69	0.00	0.22	0.00	0.52	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	678	0	108	0	950	0	123
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	14.5	0.0	5.3	0.0	22.1	0.0	6.1
Cycle Q Clear Time (g_c), s	0.0	14.5	0.0	5.3	0.0	22.1	0.0	6.1
Lane Grp Cap (c), veh/h	0	1363	0	240	0	1397	0	245
V/C Ratio (X)	0.00	0.50	0.00	0.45	0.00	0.68	0.00	0.50
Avail Cap (c_a), veh/h	0	1363	0	249	0	1397	0	249
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	23.5	0.0	40.3	0.0	25.1	0.0	40.4
Incr Delay (d2), s/veh	0.0	1.3	0.0	0.5	0.0	2.7	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.8	0.0	40.8	0.0	27.8	0.0	41.0
1st-Term Q (Q1), veh/ln	0.0	5.6	0.0	2.5	0.0	8.5	0.0	2.8
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.8	0.0	2.5	0.0	9.0	0.0	2.8
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.13	0.00	0.21	0.00	0.22
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	332	0	175	0	303	0	149
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	16.3	0.0	10.8	0.0	14.3	0.0	9.0
Cycle Q Clear Time (g_c), s	0.0	16.3	0.0	10.8	0.0	14.3	0.0	9.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	608	0	204	0	623	0	208
V/C Ratio (X)	0.00	0.55	0.00	0.86	0.00	0.49	0.00	0.72
Avail Cap (c_a), veh/h	0	608	0	211	0	623	0	211
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.0	0.0	42.7	0.0	22.8	0.0	41.7
Incr Delay (d2), s/veh	0.0	3.5	0.0	26.2	0.0	2.7	0.0	9.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	27.5	0.0	68.9	0.0	25.5	0.0	51.1
1st-Term Q (Q1), veh/ln	0.0	6.0	0.0	4.2	0.0	5.2	0.0	3.5
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	1.5	0.0	0.5	0.0	0.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.6	0.0	5.7	0.0	5.7	0.0	4.0
%ile Storage Ratio (RQ%)	0.00	0.68	0.00	0.56	0.00	0.28	0.00	1.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	37.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

6: SR - 92 & 500 West

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	923	182	219	161
Future Volume (veh/h)	166	0	923	182	219	161
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1003	198	238	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	577	0	1564	697	274	244
Arrive On Green	0.23	0.00	0.44	0.44	0.15	0.15
Sat Flow, veh/h	1781	180	3647	1585	1781	1585
Grp Volume(v), veh/h	180	23.8	1003	198	238	175
Grp Sat Flow(s),veh/h/ln	1781	C	1777	1585	1781	1585
Q Serve(g_s), s	0.0		22.0	8.0	13.0	10.5
Cycle Q Clear(g_c), s	0.0		22.0	8.0	13.0	10.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	577		1564	697	274	244
V/C Ratio(X)	0.31		0.64	0.28	0.87	0.72
Avail Cap(c_a), veh/h	577		1564	697	445	396
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7		21.8	17.9	41.3	40.2
Incr Delay (d2), s/veh	0.1		2.0	1.0	5.7	1.5
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2		8.6	2.9	6.1	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.8		23.9	18.9	47.0	41.7
LnGrp LOS	C		C	B	D	D
Approach Vol, veh/h			1201		413	
Approach Delay, s/veh			23.1		44.8	
Approach LOS			C		D	

Timer - Assigned Phs	1	2	8
Phs Duration (G+Y+Rc), s	28.6	50.0	21.4
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	13.6	44.0	25.0
Max Q Clear Time (g_c+I1), s	12.0	24.0	15.0
Green Ext Time (p_c), s	0.1	3.2	0.3

Intersection Summary	
HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	923	182	219	161
Future Volume (veh/h)	166	0	923	182	219	161
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1003	198	238	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	577	0	1564	697	274	244
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.23	0.00	0.44	0.44	0.15	0.15
Unsig. Movement Delay						
Ln Grp Delay, s/veh	23.8	0.0	23.9	18.9	47.0	41.7
Ln Grp LOS	C	A	C	B	D	D
Approach Vol, veh/h		180	1201		413	
Approach Delay, s/veh		23.8	23.1		44.8	
Approach LOS		C	C		D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	8					
Case No	7.0	1.4	9.0					
Phs Duration (G+Y+Rc), s	50.0	28.6	21.4					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	44.0	13.0	25.0					
Max Allow Headway (MAH), s	3.2	2.2	2.4					
Max Q Clear (g_c+I1), s	24.0	2.0	15.0					
Green Ext Time (g_e), s	3.2	0.1	0.3					
Prob of Phs Call (p_c)	1.00	0.99	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	5	1	3
Mvmt Sat Flow, veh/h	0	1781	1781

Through Movement Data			
Assigned Mvmt	2		8
Mvmt Sat Flow, veh/h	3647		0

Right-Turn Movement Data			
Assigned Mvmt	12		18
Mvmt Sat Flow, veh/h	1585		1585

Left Lane Group Data								
Assigned Mvmt	5	1	3	0	0	0	0	0
Lane Assignment		L (Pr/Pm)	L					

Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	180	238	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1781	1781	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	466	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	577	274	0	0	0	0	0
V/C Ratio (X)	0.00	0.31	0.87	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	577	445	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	23.7	41.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	5.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.8	47.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.2	5.7	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.2	6.1	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.30	0.36	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	8	0	0	0	0	0
Lane Assignment	T							
Lanes in Grp	2	0	0	0	0	0	0	0
Grp Vol (v), veh/h	1003	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1777	0	0	0	0	0	0	0
Q Serve Time (g_s), s	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	1564	0	0	0	0	0	0	0
V/C Ratio (X)	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1564	0	0	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	21.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	23.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	12	0	18	0	0	0	0	0
Lane Assignment	R		R					
Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	198	0	175	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	1585	0	0	0	0	0
Q Serve Time (g_s), s	8.0	0.0	10.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	8.0	0.0	10.5	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	697	0	244	0	0	0	0	0
V/C Ratio (X)	0.28	0.00	0.72	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	697	0	396	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	17.9	0.0	40.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	18.9	0.0	41.7	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	2.7	0.0	4.1	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	2.9	0.0	4.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.66	0.00	0.24	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	3	35	58	0	0	4	265	66	0	264	39
Future Vol, veh/h	59	3	35	58	0	0	4	265	66	0	264	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	3	38	63	0	0	4	288	72	0	287	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	460	676	165	477	661	180	329	0	0	360	0	0
Stage 1	308	308	-	332	332	-	-	-	-	-	-	-
Stage 2	152	368	-	145	329	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	485	374	850	471	381	832	1227	-	-	1195	-	-
Stage 1	677	659	-	655	643	-	-	-	-	-	-	-
Stage 2	835	620	-	843	645	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	484	373	850	446	380	832	1227	-	-	1195	-	-
Mov Cap-2 Maneuver	484	373	-	446	380	-	-	-	-	-	-	-
Stage 1	675	659	-	653	641	-	-	-	-	-	-	-
Stage 2	832	618	-	801	645	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	14.4	0.1	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1227	-	-	484	772	446	-	1195	-	-
HCM Lane V/C Ratio	0.004	-	-	0.133	0.054	0.141	-	-	-	-
HCM Control Delay (s)	7.9	-	-	13.6	9.9	14.4	0	0	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0.5	-	0	-	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	211	113	94	0	0	208
Future Vol, veh/h	211	113	94	0	0	208
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	229	123	102	0	0	226

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	102	0	-	0	622	51
Stage 1	-	-	-	-	102	-
Stage 2	-	-	-	-	520	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1488	-	-	-	419	1006
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	561	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1488	-	-	-	354	1006
Mov Cap-2 Maneuver	-	-	-	-	354	-
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	561	-

Approach	EB	WB	SB
HCM Control Delay, s	5.1	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1488	-	-	-	1006
HCM Lane V/C Ratio	0.154	-	-	-	0.225
HCM Control Delay (s)	7.9	-	-	-	9.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.9

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	55	1	0	4	44	44	0	45	2
Future Vol, veh/h	0	0	11	55	1	0	4	44	44	0	45	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	60	1	0	4	48	48	0	49	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	131	154	50	136	131	72	51	0	0	96	0	0
Stage 1	50	50	-	80	80	-	-	-	-	-	-	-
Stage 2	81	104	-	56	51	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	841	738	1018	835	760	990	1555	-	-	1498	-	-
Stage 1	963	853	-	929	828	-	-	-	-	-	-	-
Stage 2	927	809	-	956	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	838	736	1018	823	758	990	1555	-	-	1498	-	-
Mov Cap-2 Maneuver	838	736	-	823	758	-	-	-	-	-	-	-
Stage 1	960	853	-	926	826	-	-	-	-	-	-	-
Stage 2	923	807	-	945	852	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.6	9.7	0.3	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1555	-	-	1018	822	1498	-	-
HCM Lane V/C Ratio	0.003	-	-	0.012	0.074	-	-	-
HCM Control Delay (s)	7.3	0	-	8.6	9.7	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	47	33	0	11	51	347	51	7	379	4
Future Vol, veh/h	3	0	47	33	0	11	51	347	51	7	379	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	51	36	0	12	55	377	55	8	412	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	951	972	414	971	947	405	416	0	0	432	0	0
Stage 1	430	430	-	515	515	-	-	-	-	-	-	-
Stage 2	521	542	-	456	432	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	240	252	638	232	261	646	1143	-	-	1128	-	-
Stage 1	603	583	-	543	535	-	-	-	-	-	-	-
Stage 2	539	520	-	584	582	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	223	234	638	202	242	646	1143	-	-	1128	-	-
Mov Cap-2 Maneuver	223	234	-	202	242	-	-	-	-	-	-	-
Stage 1	564	579	-	508	501	-	-	-	-	-	-	-
Stage 2	495	487	-	533	578	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	23.3	0.9	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1143	-	-	574	244	1128	-	-
HCM Lane V/C Ratio	0.048	-	-	0.095	0.196	0.007	-	-
HCM Control Delay (s)	8.3	0	-	11.9	23.3	8.2	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	0.7	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	91	145	0	92	89	362	167	119	337	7
Future Volume (veh/h)	5	0	91	145	0	92	89	362	167	119	337	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	99	158	0	100	97	393	182	129	366	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	402	0	353	403	0	353	527	574	266	367	865	19
Arrive On Green	0.22	0.00	0.22	0.22	0.00	0.22	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1295	0	1585	1296	0	1585	1009	1209	560	838	1823	40
Grp Volume(v), veh/h	5	0	99	158	0	100	97	0	575	129	0	374
Grp Sat Flow(s),veh/h/ln	1295	0	1585	1296	0	1585	1009	0	1770	838	0	1863
Q Serve(g_s), s	0.1	0.0	2.1	4.6	0.0	2.1	2.8	0.0	10.0	5.6	0.0	5.2
Cycle Q Clear(g_c), s	2.2	0.0	2.1	6.6	0.0	2.1	8.0	0.0	10.0	15.6	0.0	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		0.02
Lane Grp Cap(c), veh/h	402	0	353	403	0	353	527	0	840	367	0	884
V/C Ratio(X)	0.01	0.00	0.28	0.39	0.00	0.28	0.18	0.00	0.68	0.35	0.00	0.42
Avail Cap(c_a), veh/h	801	0	840	802	0	840	736	0	1206	541	0	1270
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.7	0.0	12.8	15.5	0.0	12.8	9.5	0.0	8.1	14.2	0.0	6.8
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.2	0.0	0.2	0.1	0.0	0.4	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	1.1	0.0	0.6	0.5	0.0	2.6	0.9	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.7	0.0	12.9	15.7	0.0	12.9	9.5	0.0	8.5	14.4	0.0	7.0
LnGrp LOS	B	A	B	B	A	B	A	A	A	B	A	A
Approach Vol, veh/h		104			258			672			503	
Approach Delay, s/veh		13.0			14.7			8.6			8.9	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	24.8	14.8	24.8	14.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	27.0	21.0	27.0	21.0
Max Q Clear Time (g_c+I1), s	12.0	4.2	17.6	8.6
Green Ext Time (p_c), s	2.0	0.2	1.2	0.4

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	91	145	0	92	89	362	167	119	337	7
Future Volume (veh/h)	5	0	91	145	0	92	89	362	167	119	337	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	99	158	0	100	97	393	182	129	366	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	402	0	353	403	0	353	527	574	266	367	865	19
HCM 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
Prop Arrive On Green	0.22	0.00	0.22	0.22	0.00	0.22	0.47	0.47	0.47	0.47	0.47	0.47
Unsig. Movement Delay												
Ln Grp Delay, s/veh	13.7	0.0	12.9	15.7	0.0	12.9	9.5	0.0	8.5	14.4	0.0	7.0
Ln Grp LOS	B	A	B	B	A	B	A	A	A	B	A	A
Approach Vol, veh/h		104			258			672			503	
Approach Delay, s/veh		13.0			14.7			8.6			8.9	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		24.8		14.8		24.8		14.8
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		27.0		21.0		27.0		21.0
Max Allow Headway (MAH), s		3.8		4.0		3.8		3.1
Max Q Clear (g_c+I1), s		12.0		4.2		17.6		8.6
Green Ext Time (g_e), s		2.0		0.2		1.2		0.4
Prob of Phs Call (p_c)		1.00		0.98		1.00		0.98
Prob of Max Out (p_x)		0.02		0.00		0.09		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1009		1295		838		1296
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1209		0		1823		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		560		1585		40		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	97	0	5	0	129	0	158
Grp Sat Flow (s), veh/h/ln	0	1009	0	1295	0	838	0	1296
Q Serve Time (g_s), s	0.0	2.8	0.0	0.1	0.0	5.6	0.0	4.6
Cycle Q Clear Time (g_c), s	0.0	8.0	0.0	2.2	0.0	15.6	0.0	6.6
Perm LT Sat Flow (s_l), veh/h/ln	0	1009	0	1295	0	838	0	1296
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.8	0.0	8.8	0.0	18.8	0.0	8.8
Perm LT Serve Time (g_u), s	0.0	13.6	0.0	6.7	0.0	8.8	0.0	6.8
Perm LT Q Serve Time (g_ps), s	0.0	2.8	0.0	0.1	0.0	5.6	0.0	4.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	527	0	402	0	367	0	403
V/C Ratio (X)	0.00	0.18	0.00	0.01	0.00	0.35	0.00	0.39
Avail Cap (c_a), veh/h	0	736	0	801	0	541	0	802
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.5	0.0	13.7	0.0	14.2	0.0	15.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.5	0.0	13.7	0.0	14.4	0.0	15.7
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.0	0.0	0.9	0.0	1.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	0.0	0.0	0.9	0.0	1.1
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.01	0.00	0.23	0.00	0.29
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	575	0	99	0	374	0	100
Grp Sat Flow (s), veh/h/ln	0	1770	0	1585	0	1863	0	1585
Q Serve Time (g_s), s	0.0	10.0	0.0	2.1	0.0	5.2	0.0	2.1
Cycle Q Clear Time (g_c), s	0.0	10.0	0.0	2.1	0.0	5.2	0.0	2.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.32	0.00	1.00	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	840	0	353	0	884	0	353
V/C Ratio (X)	0.00	0.68	0.00	0.28	0.00	0.42	0.00	0.28
Avail Cap (c_a), veh/h	0	1206	0	840	0	1270	0	840
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.1	0.0	12.8	0.0	6.8	0.0	12.8
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.2	0.0	0.1	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.5	0.0	12.9	0.0	7.0	0.0	12.9
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	0.6	0.0	1.4	0.0	0.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.6	0.0	0.6	0.0	1.4	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.03	0.00	0.02	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		10.0						
HCM 6th LOS		B						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	420	1976	53	237	844	160	104	179	178	164	120	221
Future Volume (veh/h)	420	1976	53	237	844	160	104	179	178	164	120	221
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	457	2148	58	258	917	174	113	195	193	178	130	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	517	2242	696	522	1964	876	201	209	177	204	517	
Arrive On Green	0.15	0.44	0.44	0.26	0.55	0.55	0.11	0.11	0.11	0.11	0.28	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1260	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	457	2148	58	258	917	174	113	195	193	178	130	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1260	1870	1585	1781	1870	1585
Q Serve(g_s), s	15.6	48.9	2.6	9.9	18.7	6.6	10.5	12.4	10.0	11.8	6.5	0.0
Cycle Q Clear(g_c), s	15.6	48.9	2.6	9.9	18.7	6.6	10.5	12.4	10.0	11.8	6.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	517	2242	696	522	1964	876	201	209	177	204	517	
V/C Ratio(X)	0.88	0.96	0.08	0.49	0.47	0.20	0.56	0.93	1.09	0.87	0.25	
Avail Cap(c_a), veh/h	648	2242	696	522	1964	876	201	209	177	208	521	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.0	32.6	19.6	35.6	16.2	13.5	52.0	52.9	29.8	52.2	33.8	0.0
Incr Delay (d2), s/veh	10.2	11.4	0.2	0.3	0.8	0.5	2.2	43.4	93.9	30.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	20.8	0.9	6.0	7.1	2.5	3.4	8.3	8.5	7.0	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	44.0	19.8	35.9	17.0	14.0	54.2	96.3	123.7	82.5	33.9	0.0
LnGrp LOS	E	D	B	D	B	B	D	F	F	F	C	
Approach Vol, veh/h		2663			1349			501			308	A
Approach Delay, s/veh		46.2			20.2			97.4			62.0	
Approach LOS		D			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	24.4	73.6	19.8	21.0	38.1	60.0		40.8
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 23	* 43	14.0	13.4	* 13	* 53		33.4
Max Q Clear Time (g_c+I1), s	17.6	20.7	13.8	14.4	11.9	50.9		8.5
Green Ext Time (p_c), s	0.4	3.6	0.0	0.0	0.0	1.5		0.3

Intersection Summary	
HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	420	1976	53	237	844	160	104	179	178	164	120	221
Future Volume (veh/h)	420	1976	53	237	844	160	104	179	178	164	120	221
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	457	2148	58	258	917	174	113	195	193	178	130	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	517	2242	696	522	1964	876	201	209	177	204	517	
HCM 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
Prop Arrive On Green	0.15	0.44	0.44	0.26	0.55	0.55	0.11	0.11	0.11	0.11	0.28	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	60.2	44.0	19.8	35.9	17.0	14.0	54.2	96.3	123.7	82.5	33.9	0.0
Ln Grp LOS	E	D	B	D	B	B	D	F	F	F	C	
Approach Vol, veh/h		2663			1349			501			308	
Approach Delay, s/veh		46.2			20.2			97.4			62.0	
Approach LOS		D			C			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	6	5		8
Case No	2.0	3.0	2.0	5.3	3.0	1.3		3.0
Phs Duration (G+Y+Rc), s	24.4	73.6	19.8	21.0	60.0	38.1		40.8
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 23	* 43	14.0	13.4	* 53	* 13		33.4
Max Allow Headway (MAH), s	2.5	3.5	3.8	2.7	3.6	1.3		3.4
Max Q Clear (g_c+I1), s	17.6	20.7	13.8	14.4	50.9	11.9		8.5
Green Ext Time (g_e), s	0.4	3.6	0.0	0.0	1.5	0.0		0.3
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.08	0.00	1.00	1.00	0.00	1.00		0.00

Left-Turn Movement Data						
Assigned Mvmt	1		3	7		5
Mvmt Sat Flow, veh/h	3456		1781	1260		1781

Through Movement Data								
Assigned Mvmt			2		4	6		8
Mvmt Sat Flow, veh/h			3554		1870	5106		1870

Right-Turn Movement Data								
Assigned Mvmt			12		14	16		18
Mvmt Sat Flow, veh/h			1585		1585	1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L (Prot)	L		L (Pr/Pm)		

Lanes in Grp	2	0	1	1	0	1	0	0
Grp Vol (v), veh/h	457	0	178	113	0	258	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1260	0	1781	0	0
Q Serve Time (g_s), s	15.6	0.0	11.8	10.5	0.0	9.9	0.0	0.0
Cycle Q Clear Time (g_c), s	15.6	0.0	11.8	10.5	0.0	9.9	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1260	0	176	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	13.4	0.0	52.7	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	13.4	0.0	3.8	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	10.5	0.0	3.8	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	517	0	204	201	0	522	0	0
V/C Ratio (X)	0.88	0.00	0.87	0.56	0.00	0.49	0.00	0.00
Avail Cap (c_a), veh/h	648	0	208	201	0	522	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	50.0	0.0	52.2	52.0	0.0	35.6	0.0	0.0
Incr Delay (d2), s/veh	10.2	0.0	30.3	2.2	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	60.2	0.0	82.5	54.2	0.0	35.9	0.0	0.0
1st-Term Q (Q1), veh/ln	6.5	0.0	5.3	3.3	0.0	6.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.7	0.0	1.7	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	7.2	0.0	7.0	3.4	0.0	6.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.42	0.00	0.78	0.55	0.00	0.57	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	917	0	195	2148	0	0	130
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	18.7	0.0	12.4	48.9	0.0	0.0	6.5
Cycle Q Clear Time (g_c), s	0.0	18.7	0.0	12.4	48.9	0.0	0.0	6.5
Lane Grp Cap (c), veh/h	0	1964	0	209	2242	0	0	517
V/C Ratio (X)	0.00	0.47	0.00	0.93	0.96	0.00	0.00	0.25
Avail Cap (c_a), veh/h	0	1964	0	209	2242	0	0	521
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.2	0.0	52.9	32.6	0.0	0.0	33.8
Incr Delay (d2), s/veh	0.0	0.8	0.0	43.4	11.4	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.0	0.0	96.3	44.0	0.0	0.0	33.9
1st-Term Q (Q1), veh/ln	0.0	6.9	0.0	5.8	18.4	0.0	0.0	3.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	2.5	2.4	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.1	0.0	8.3	20.8	0.0	0.0	3.0
%ile Storage Ratio (RQ%)	0.00	0.14	0.00	0.33	0.43	0.00	0.00	0.33
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	174	0	193	58	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	6.6	0.0	10.0	2.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	6.6	0.0	10.0	2.6	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	876	0	177	696	0	0	438
V/C Ratio (X)	0.00	0.20	0.00	1.09	0.08	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	876	0	177	696	0	0	441
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.5	0.0	29.8	19.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	93.9	0.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.0	0.0	123.7	19.8	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.3	0.0	3.8	0.9	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	4.6	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	8.5	0.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.23	0.00	1.34	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1963	389	247	921	1	391	17	231	121	179	478
Future Volume (veh/h)	19	1963	389	247	921	1	391	17	231	121	179	478
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	2134	423	268	1001	1	425	18	251	132	195	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1529	3876	1203	284	1670	745	455	504	225	186	234	
Arrive On Green	0.44	0.76	0.76	0.16	0.47	0.47	0.13	0.14	0.14	0.05	0.07	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	21	2134	423	268	1001	1	425	18	251	132	195	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.4	20.8	10.5	17.9	24.9	0.1	14.6	0.5	17.0	4.5	6.5	0.0
Cycle Q Clear(g_c), s	0.4	20.8	10.5	17.9	24.9	0.1	14.6	0.5	17.0	4.5	6.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1529	3876	1203	284	1670	745	455	504	225	186	234	
V/C Ratio(X)	0.01	0.55	0.35	0.95	0.60	0.00	0.93	0.04	1.12	0.71	0.83	
Avail Cap(c_a), veh/h	1529	3876	1203	284	1670	745	455	504	225	392	234	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.8	6.0	4.7	49.9	23.5	30.1	51.6	44.4	51.5	55.8	55.4	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.8	38.5	1.6	0.0	26.2	0.0	94.5	1.9	20.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.4	3.2	10.7	10.0	0.0	8.0	0.2	12.6	2.0	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	6.5	5.6	88.4	25.1	30.1	77.8	44.4	146.0	57.7	76.3	0.0
LnGrp LOS	B	A	A	F	C	C	E	D	F	E	E	
Approach Vol, veh/h		2578			1270			694			327	A
Approach Delay, s/veh		6.5			38.4			101.6			68.8	
Approach LOS		A			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	62.0	63.0	12.9	24.1	25.0	100.0	22.0	15.0
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 7.1	5.9	* 7.7	* 6.2	7.1
Max Green Setting (Gmax), s	12.3	* 56	13.6	* 11	19.1	* 52	* 16	7.9
Max Q Clear Time (g_c+I1), s	12.4	26.9	6.5	19.0	19.9	22.8	16.6	8.5
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.0	12.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1963	389	247	921	1	391	17	231	121	179	478
Future Volume (veh/h)	19	1963	389	247	921	1	391	17	231	121	179	478
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	2134	423	268	1001	1	425	18	251	132	195	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	1529	3876	1203	284	1670	745	455	504	225	186	234	
HCM 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
Prop Arrive On Green	0.44	0.76	0.76	0.16	0.47	0.47	0.13	0.14	0.14	0.05	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.8	6.5	5.6	88.4	25.1	30.1	77.8	44.4	146.0	57.7	76.3	0.0
Ln Grp LOS	B	A	A	F	C	C	E	D	F	E	E	
Approach Vol, veh/h		2578			1270			694			327	
Approach Delay, s/veh		6.5			38.4			101.6			68.8	
Approach LOS		A			D			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	3	4	5	6	7	8
Case No	3.0	2.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	63.0	62.0	12.9	24.1	25.0	100.0	22.0	15.0
Change Period (Y+Rc), s	* 6.6	7.7	6.4	* 7.1	5.9	* 7.7	* 6.2	7.1
Max Green (Gmax), s	* 56	12.3	13.6	* 11	19.1	* 52	* 16	7.9
Max Allow Headway (MAH), s	3.6	1.3	1.6	2.3	1.3	3.5	1.4	3.1
Max Q Clear (g_c+I1), s	26.9	2.4	6.5	19.0	19.9	22.8	16.6	8.5
Green Ext Time (g_e), s	3.9	0.0	0.0	0.0	0.0	12.6	0.0	0.0
Prob of Phs Call (p_c)	1.00	0.50	0.99	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt		1	3		5		7	
Mvmt Sat Flow, veh/h		3456	3456		1781		3456	

Through Movement Data								
Assigned Mvmt	2			4		6		8
Mvmt Sat Flow, veh/h	3554			3554		5106		3554

Right-Turn Movement Data								
Assigned Mvmt	12			14		16		18
Mvmt Sat Flow, veh/h	1585			1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	0	1	3	0	5	0	7	0
Lane Assignment		L (Prot)	L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	0	2	2	0	1	0	2	0
Grp Vol (v), veh/h	0	21	132	0	268	0	425	0
Grp Sat Flow (s), veh/h/ln	0	1728	1728	0	1781	0	1728	0
Q Serve Time (g_s), s	0.0	0.4	4.5	0.0	17.9	0.0	14.6	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	4.5	0.0	17.9	0.0	14.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	1529	186	0	284	0	455	0
V/C Ratio (X)	0.00	0.01	0.71	0.00	0.95	0.00	0.93	0.00
Avail Cap (c_a), veh/h	0	1529	392	0	284	0	455	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	18.8	55.8	0.0	49.9	0.0	51.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.9	0.0	38.5	0.0	26.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.8	57.7	0.0	88.4	0.0	77.8	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	2.0	0.0	7.6	0.0	6.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	3.0	0.0	1.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.2	2.0	0.0	10.7	0.0	8.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.22	0.00	1.20	0.00	0.78	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	0	8
Lane Assignment	T			T		T		T
Lanes in Grp	2	0	0	2	0	3	0	2
Grp Vol (v), veh/h	1001	0	0	18	0	2134	0	195
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	0	1777
Q Serve Time (g_s), s	24.9	0.0	0.0	0.5	0.0	20.8	0.0	6.5
Cycle Q Clear Time (g_c), s	24.9	0.0	0.0	0.5	0.0	20.8	0.0	6.5
Lane Grp Cap (c), veh/h	1670	0	0	504	0	3876	0	234
V/C Ratio (X)	0.60	0.00	0.00	0.04	0.00	0.55	0.00	0.83
Avail Cap (c_a), veh/h	1670	0	0	504	0	3876	0	234
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	23.5	0.0	0.0	44.4	0.0	6.0	0.0	55.4
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.0	0.0	0.6	0.0	20.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	25.1	0.0	0.0	44.4	0.0	6.5	0.0	76.3
1st-Term Q (Q1), veh/ln	9.7	0.0	0.0	0.2	0.0	5.2	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.7

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	10.0	0.0	0.0	0.2	0.0	5.4	0.0	3.6
%ile Storage Ratio (RQ%)	0.24	0.00	0.00	0.01	0.00	0.28	0.00	0.12
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	0	18
Lane Assignment	R			R		R		R
Lanes in Grp	1	0	0	1	0	1	0	1
Grp Vol (v), veh/h	1	0	0	251	0	423	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.1	0.0	0.0	17.0	0.0	10.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.1	0.0	0.0	17.0	0.0	10.5	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	745	0	0	225	0	1203	0	104
V/C Ratio (X)	0.00	0.00	0.00	1.12	0.00	0.35	0.00	0.00
Avail Cap (c_a), veh/h	745	0	0	225	0	1203	0	104
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	30.1	0.0	0.0	51.5	0.0	4.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	94.5	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	30.1	0.0	0.0	146.0	0.0	5.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.7	0.0	3.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	5.9	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	12.6	0.0	3.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	1.24	0.00	0.36	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	1290	205	193	799	333	327	110	217	310	99	121
Future Volume (veh/h)	143	1290	205	193	799	333	327	110	217	310	99	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	155	1402	223	210	868	362	355	120	236	337	108	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	182	1660	740	266	1571	701	407	207	176	392	199	169
Arrive On Green	0.10	0.47	0.47	0.08	0.44	0.44	0.12	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	155	1402	223	210	868	362	355	120	236	337	108	132
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	10.3	41.7	10.5	7.2	21.6	19.8	12.1	7.3	13.3	11.5	6.6	9.7
Cycle Q Clear(g_c), s	10.3	41.7	10.5	7.2	21.6	19.8	12.1	7.3	13.3	11.5	6.6	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	182	1660	740	266	1571	701	407	207	176	392	199	169
V/C Ratio(X)	0.85	0.84	0.30	0.79	0.55	0.52	0.87	0.58	1.34	0.86	0.54	0.78
Avail Cap(c_a), veh/h	276	1660	740	363	1571	701	412	207	176	412	207	176
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.0	28.1	19.8	54.4	24.7	24.2	52.0	50.7	53.3	52.3	50.8	52.3
Incr Delay (d2), s/veh	9.6	5.5	1.0	5.4	1.4	2.7	17.3	2.7	187.5	16.1	1.3	17.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	17.4	4.1	3.2	8.8	7.9	6.3	3.6	14.4	5.9	3.2	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	33.6	20.9	59.8	26.1	26.9	69.4	53.3	240.9	68.3	52.1	69.9
LnGrp LOS	E	C	C	E	C	C	E	D	F	E	D	E
Approach Vol, veh/h		1780			1440			711			577	
Approach Delay, s/veh		34.5			31.2			123.6			65.6	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.7	60.0	20.3	20.0	16.6	63.1	20.8	19.5
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 13	46.0	* 14	* 13	* 13	52.0	* 14	* 13
Max Q Clear Time (g_c+I1), s	12.3	23.6	13.5	15.3	9.2	43.7	14.1	11.7
Green Ext Time (p_c), s	0.1	3.9	0.1	0.0	0.1	4.1	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	1290	205	193	799	333	327	110	217	310	99	121
Future Volume (veh/h)	143	1290	205	193	799	333	327	110	217	310	99	121
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	155	1402	223	210	868	362	355	120	236	337	108	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	182	1660	740	266	1571	701	407	207	176	392	199	169
HCM 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
Prop Arrive On Green	0.10	0.47	0.47	0.08	0.44	0.44	0.12	0.11	0.11	0.11	0.11	0.11
Unsig. Movement Delay												
Ln Grp Delay, s/veh	62.6	33.6	20.9	59.8	26.1	26.9	69.4	53.3	240.9	68.3	52.1	69.9
Ln Grp LOS	E	C	C	E	C	C	E	D	F	E	D	E
Approach Vol, veh/h		1780			1440			711			577	
Approach Delay, s/veh		34.5			31.2			123.6			65.6	
Approach LOS		C			C			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	19.7	60.0	20.3	20.0	16.6	63.1	20.8	19.5
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green (Gmax), s	* 19	46.0	* 14	* 13	* 13	52.0	* 14	* 13
Max Allow Headway (MAH), s	2.2	3.4	3.8	3.4	2.2	3.6	2.2	3.5
Max Q Clear (g_c+I1), s	12.3	23.6	13.5	15.3	9.2	43.7	14.1	11.7
Green Ext Time (g_e), s	0.1	3.9	0.1	0.0	0.1	4.1	0.0	0.1
Prob of Phs Call (p_c)	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	1.00	1.00	0.10	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	1781		3456		3456		3456	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3554		1870		3554		1870

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	1	0	2	0	2	0	2	0
Grp Vol (v), veh/h	155	0	337	0	210	0	355	0
Grp Sat Flow (s), veh/h/ln	1781	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	10.3	0.0	11.5	0.0	7.2	0.0	12.1	0.0
Cycle Q Clear Time (g_c), s	10.3	0.0	11.5	0.0	7.2	0.0	12.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	182	0	392	0	266	0	407	0
V/C Ratio (X)	0.85	0.00	0.86	0.00	0.79	0.00	0.87	0.00
Avail Cap (c_a), veh/h	276	0	412	0	363	0	412	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	53.0	0.0	52.3	0.0	54.4	0.0	52.0	0.0
Incr Delay (d2), s/veh	9.6	0.0	16.1	0.0	5.4	0.0	17.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	62.6	0.0	68.3	0.0	59.8	0.0	69.4	0.0
1st-Term Q (Q1), veh/ln	4.4	0.0	5.0	0.0	3.0	0.0	5.3	0.0
2nd-Term Q (Q2), veh/ln	0.5	0.0	0.9	0.0	0.2	0.0	1.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	4.9	0.0	5.9	0.0	3.2	0.0	6.3	0.0
%ile Storage Ratio (RQ%)	0.25	0.00	0.74	0.00	0.33	0.00	0.61	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	868	0	120	0	1402	0	108
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	21.6	0.0	7.3	0.0	41.7	0.0	6.6
Cycle Q Clear Time (g_c), s	0.0	21.6	0.0	7.3	0.0	41.7	0.0	6.6
Lane Grp Cap (c), veh/h	0	1571	0	207	0	1660	0	199
V/C Ratio (X)	0.00	0.55	0.00	0.58	0.00	0.84	0.00	0.54
Avail Cap (c_a), veh/h	0	1571	0	207	0	1660	0	207
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.7	0.0	50.7	0.0	28.1	0.0	50.8
Incr Delay (d2), s/veh	0.0	1.4	0.0	2.7	0.0	5.5	0.0	1.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	26.1	0.0	53.3	0.0	33.6	0.0	52.1
1st-Term Q (Q1), veh/ln	0.0	8.5	0.0	3.5	0.0	16.2	0.0	3.1
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.2	0.0	1.3	0.0	0.1

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	8.8	0.0	3.6	0.0	17.4	0.0	3.2
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.19	0.00	0.42	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	362	0	236	0	223	0	132
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	19.8	0.0	13.3	0.0	10.5	0.0	9.7
Cycle Q Clear Time (g_c), s	0.0	19.8	0.0	13.3	0.0	10.5	0.0	9.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	701	0	176	0	740	0	169
V/C Ratio (X)	0.00	0.52	0.00	1.34	0.00	0.30	0.00	0.78
Avail Cap (c_a), veh/h	0	701	0	176	0	740	0	176
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.2	0.0	53.3	0.0	19.8	0.0	52.3
Incr Delay (d2), s/veh	0.0	2.7	0.0	187.5	0.0	1.0	0.0	17.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	26.9	0.0	240.9	0.0	20.9	0.0	69.9
1st-Term Q (Q1), veh/ln	0.0	7.4	0.0	5.3	0.0	3.9	0.0	3.9
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	9.2	0.0	0.2	0.0	0.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.9	0.0	14.4	0.0	4.1	0.0	4.7
%ile Storage Ratio (RQ%)	0.00	0.82	0.00	1.43	0.00	0.20	0.00	1.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	15.1	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	134	0	1090	159	178	187
Future Volume (veh/h)	134	0	1090	159	178	187
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	0	1185	173	193	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	335	0	2353	1049	258	229
Arrive On Green	0.04	0.00	0.66	0.66	0.14	0.14
Sat Flow, veh/h	1781	146	3647	1585	1781	1585
Grp Volume(v), veh/h	146	8.7	1185	173	193	203
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	3.2		20.3	5.0	12.5	15.1
Cycle Q Clear(g_c), s	3.2		20.3	5.0	12.5	15.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	335		2353	1049	258	229
V/C Ratio(X)	0.44		0.50	0.16	0.75	0.88
Avail Cap(c_a), veh/h	451		2353	1049	371	330
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.4		10.3	7.7	49.2	50.3
Incr Delay (d2), s/veh	0.3		0.8	0.3	2.4	13.8
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0		6.9	1.6	5.7	6.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.7		11.1	8.0	51.6	64.2
LnGrp LOS	A		B	A	D	E
Approach Vol, veh/h			1358		396	
Approach Delay, s/veh			10.7		58.0	
Approach LOS			B		E	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	11.2	85.5				23.4
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	13.0	64.0				25.0
Max Q Clear Time (g_c+I1), s	5.2	22.3				17.1
Green Ext Time (p_c), s	0.1	4.2				0.3

Intersection Summary	
HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	134	0	1090	159	178	187
Future Volume (veh/h)	134	0	1090	159	178	187
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	0	1185	173	193	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	335	0	2353	1049	258	229
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.00	0.66	0.66	0.14	0.14
Unsig. Movement Delay						
Ln Grp Delay, s/veh	8.7	0.0	11.1	8.0	51.6	64.2
Ln Grp LOS	A	A	B	A	D	E
Approach Vol, veh/h		146	1358		396	
Approach Delay, s/veh		8.7	10.7		58.0	
Approach LOS		A	B		E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	11.2	85.5	23.4					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	64.0	25.0					
Max Allow Headway (MAH), s	2.2	3.2	2.4					
Max Q Clear (g_c+I1), s	5.2	22.3	17.1					
Green Ext Time (g_e), s	0.1	4.2	0.3					
Prob of Phs Call (p_c)	0.99	1.00	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	146	0	193	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	3.2	0.0	12.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.2	0.0	12.5	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	401	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	79.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	59.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	79.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	335	0	258	0	0	0	0	0
V/C Ratio (X)	0.44	0.00	0.75	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	451	0	371	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.4	0.0	49.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	2.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.7	0.0	51.6	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.33	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1185	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	20.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	20.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2353	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2353	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.3	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	6.9	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	173	203	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	5.0	15.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.0	15.1	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1049	229	0	0	0	0	0
V/C Ratio (X)	0.00	0.16	0.88	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1049	330	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.7	50.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	13.8	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.0	64.2	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.5	6.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.9	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.6	6.8	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.36	0.40	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		20.4						
HCM 6th LOS		C						

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	33	123	1	1	14	138	81	0	163	8
Future Vol, veh/h	6	2	33	123	1	1	14	138	81	0	163	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	2	36	134	1	1	15	150	88	0	177	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	288	450	93	314	410	119	186	0	0	238	0	0
Stage 1	182	182	-	224	224	-	-	-	-	-	-	-
Stage 2	106	268	-	90	186	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	642	503	946	615	530	910	1386	-	-	1326	-	-
Stage 1	802	748	-	758	717	-	-	-	-	-	-	-
Stage 2	888	686	-	907	745	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	635	497	946	585	524	910	1386	-	-	1326	-	-
Mov Cap-2 Maneuver	635	497	-	585	524	-	-	-	-	-	-	-
Stage 1	793	748	-	750	709	-	-	-	-	-	-	-
Stage 2	876	678	-	870	745	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	13	0.5	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1386	-	-	635	900	585	665	1326	-	-
HCM Lane V/C Ratio	0.011	-	-	0.01	0.042	0.229	0.003	-	-	-
HCM Control Delay (s)	7.6	-	-	10.7	9.2	13	10.4	0	-	-
HCM Lane LOS	A	-	-	B	A	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.9	0	0	-	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	94	52	69	0	1	102
Future Vol, veh/h	94	52	69	0	1	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	102	57	75	0	1	111

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	75	0	-	0	308	38
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	233	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1522	-	-	-	660	1026
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	784	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1522	-	-	-	616	1026
Mov Cap-2 Maneuver	-	-	-	-	616	-
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	784	-

Approach	EB	WB	SB
HCM Control Delay, s	4.9	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1522	-	-	-	1019
HCM Lane V/C Ratio	0.067	-	-	-	0.11
HCM Control Delay (s)	7.5	-	-	-	9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1	9	56	2	1	6	43	45	0	37	1
Future Vol, veh/h	8	1	9	56	2	1	6	43	45	0	37	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	1	10	61	2	1	7	47	49	0	40	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	128	151	41	132	127	72	41	0	0	96	0	0
Stage 1	41	41	-	86	86	-	-	-	-	-	-	-
Stage 2	87	110	-	46	41	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	845	741	1030	840	764	990	1568	-	-	1498	-	-
Stage 1	974	861	-	922	824	-	-	-	-	-	-	-
Stage 2	921	804	-	968	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	839	737	1030	828	760	990	1568	-	-	1498	-	-
Mov Cap-2 Maneuver	839	737	-	828	760	-	-	-	-	-	-	-
Stage 1	969	861	-	917	820	-	-	-	-	-	-	-
Stage 2	913	800	-	958	861	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	9.7	0.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1568	-	-	917	828	1498	-	-
HCM Lane V/C Ratio	0.004	-	-	0.021	0.077	-	-	-
HCM Control Delay (s)	7.3	0	-	9	9.7	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	77	35	0	7	18	215	21	2	375	1
Future Vol, veh/h	4	0	77	35	0	7	18	215	21	2	375	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	84	38	0	8	20	234	23	2	408	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	703	710	409	741	699	246	409	0	0	257	0	0
Stage 1	413	413	-	286	286	-	-	-	-	-	-	-
Stage 2	290	297	-	455	413	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	352	359	642	332	364	793	1150	-	-	1308	-	-
Stage 1	616	594	-	721	675	-	-	-	-	-	-	-
Stage 2	718	668	-	585	594	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	343	351	642	284	356	793	1150	-	-	1308	-	-
Mov Cap-2 Maneuver	343	351	-	284	356	-	-	-	-	-	-	-
Stage 1	604	593	-	707	662	-	-	-	-	-	-	-
Stage 2	697	655	-	508	593	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	18.2	0.6	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1150	-	-	616	318	1308	-	-
HCM Lane V/C Ratio	0.017	-	-	0.143	0.144	0.002	-	-
HCM Control Delay (s)	8.2	0	-	11.8	18.2	7.8	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.5	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	115	141	0	82	37	170	12	136	339	3
Future Volume (veh/h)	6	0	115	141	0	82	37	170	12	136	339	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	0	125	153	0	89	40	185	13	148	368	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	510	0	390	477	0	390	429	592	42	559	635	5
Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1308	0	1585	1266	0	1585	1011	1727	121	1185	1853	15
Grp Volume(v), veh/h	7	0	125	153	0	89	40	0	198	148	0	371
Grp Sat Flow(s),veh/h/ln	1308	0	1585	1266	0	1585	1011	0	1849	1185	0	1868
Q Serve(g_s), s	0.1	0.0	1.9	3.3	0.0	1.3	1.0	0.0	2.3	3.1	0.0	4.8
Cycle Q Clear(g_c), s	1.4	0.0	1.9	5.2	0.0	1.3	5.7	0.0	2.3	5.4	0.0	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.01
Lane Grp Cap(c), veh/h	510	0	390	477	0	390	429	0	633	559	0	640
V/C Ratio(X)	0.01	0.00	0.32	0.32	0.00	0.23	0.09	0.00	0.31	0.26	0.00	0.58
Avail Cap(c_a), veh/h	1219	0	1249	1163	0	1249	948	0	1584	1168	0	1600
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.4	0.0	9.0	11.1	0.0	8.8	10.2	0.0	7.1	9.0	0.0	7.9
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	0.7	0.0	0.3	0.2	0.0	0.6	0.5	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.4	0.0	9.2	11.3	0.0	8.9	10.3	0.0	7.2	9.1	0.0	8.2
LnGrp LOS	A	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		132			242			238			519	
Approach Delay, s/veh		9.2			10.4			7.7			8.4	
Approach LOS		A			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	16.0	13.2	16.0	13.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	25.0	23.0	25.0	23.0
Max Q Clear Time (g_c+I1), s	7.7	3.9	7.4	7.2
Green Ext Time (p_c), s	0.6	0.3	1.2	0.4

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	115	141	0	82	37	170	12	136	339	3
Future Volume (veh/h)	6	0	115	141	0	82	37	170	12	136	339	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	0	125	153	0	89	40	185	13	148	368	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	510	0	390	477	0	390	429	592	42	559	635	5
HCM 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
Prop Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.34	0.34	0.34	0.34	0.34	0.34
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.4	0.0	9.2	11.3	0.0	8.9	10.3	0.0	7.2	9.1	0.0	8.2
Ln Grp LOS	A	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		132			242			238			519	
Approach Delay, s/veh		9.2			10.4			7.7			8.4	
Approach LOS		A			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		16.0		13.2		16.0		13.2
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		25.0		23.0		25.0		23.0
Max Allow Headway (MAH), s		3.7		4.0		3.5		3.1
Max Q Clear (g_c+I1), s		7.7		3.9		7.4		7.2
Green Ext Time (g_e), s		0.6		0.3		1.2		0.4
Prob of Phs Call (p_c)		1.00		0.95		1.00		0.95
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00

Left-Turn Movement Data				
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1011		1308		1185		1266

Through Movement Data				
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1727		0		1853		0

Right-Turn Movement Data				
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		121		1585		15		1585

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	40	0	7	0	148	0	153
Grp Sat Flow (s), veh/h/ln	0	1011	0	1308	0	1185	0	1266
Q Serve Time (g_s), s	0.0	1.0	0.0	0.1	0.0	3.1	0.0	3.3
Cycle Q Clear Time (g_c), s	0.0	5.7	0.0	1.4	0.0	5.4	0.0	5.2
Perm LT Sat Flow (s_l), veh/h/ln	0	1011	0	1308	0	1185	0	1266
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	10.0	0.0	7.2	0.0	10.0	0.0	7.2
Perm LT Serve Time (g_u), s	0.0	5.2	0.0	5.9	0.0	7.7	0.0	5.3
Perm LT Q Serve Time (g_ps), s	0.0	1.0	0.0	0.1	0.0	3.1	0.0	3.3
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	429	0	510	0	559	0	477
V/C Ratio (X)	0.00	0.09	0.00	0.01	0.00	0.26	0.00	0.32
Avail Cap (c_a), veh/h	0	948	0	1219	0	1168	0	1163
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	9.4	0.0	9.0	0.0	11.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.3	0.0	9.4	0.0	9.1	0.0	11.3
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.01	0.00	0.14	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	198	0	125	0	371	0	89
Grp Sat Flow (s), veh/h/ln	0	1849	0	1585	0	1868	0	1585
Q Serve Time (g_s), s	0.0	2.3	0.0	1.9	0.0	4.8	0.0	1.3
Cycle Q Clear Time (g_c), s	0.0	2.3	0.0	1.9	0.0	4.8	0.0	1.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.07	0.00	1.00	0.00	0.01	0.00	1.00
Lane Grp Cap (c), veh/h	0	633	0	390	0	640	0	390
V/C Ratio (X)	0.00	0.31	0.00	0.32	0.00	0.58	0.00	0.23
Avail Cap (c_a), veh/h	0	1584	0	1249	0	1600	0	1249
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.1	0.0	9.0	0.0	7.9	0.0	8.8
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.3	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.2	0.0	9.2	0.0	8.2	0.0	8.9
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.4	0.0	1.1	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	0.5	0.0	1.2	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.03	0.00	0.02	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	1123	51	169	772	78	62	63	68	139	91	231
Future Volume (veh/h)	143	1123	51	169	772	78	62	63	68	139	91	231
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	155	1221	55	184	839	85	67	68	74	151	99	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	1619	502	519	1731	772	165	134	114	184	439	
Arrive On Green	0.06	0.32	0.32	0.23	0.49	0.49	0.07	0.07	0.07	0.10	0.23	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1296	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	155	1221	55	184	839	85	67	68	74	151	99	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1296	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.4	21.5	2.5	1.6	15.9	2.9	5.1	3.5	2.7	8.3	4.3	0.0
Cycle Q Clear(g_c), s	4.4	21.5	2.5	1.6	15.9	2.9	5.1	3.5	2.7	8.3	4.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	222	1619	502	519	1731	772	165	134	114	184	439	
V/C Ratio(X)	0.70	0.75	0.11	0.35	0.48	0.11	0.41	0.51	0.65	0.82	0.23	
Avail Cap(c_a), veh/h	467	1619	502	519	1731	772	220	213	181	285	625	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.8	30.7	24.2	28.8	17.2	13.9	45.4	44.7	16.1	43.9	30.9	0.0
Incr Delay (d2), s/veh	1.5	3.3	0.4	0.2	1.0	0.3	0.6	1.1	2.3	10.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	8.6	0.9	3.3	6.0	1.1	1.6	1.7	1.8	4.2	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.3	34.0	24.6	29.0	18.2	14.2	46.0	45.8	18.4	54.4	31.0	0.0
LnGrp LOS	D	C	C	C	B	B	D	D	B	D	C	
Approach Vol, veh/h		1431			1108			209			250	A
Approach Delay, s/veh		35.1			19.7			36.2			45.1	
Approach LOS		D			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	12.9	56.0	16.3	14.8	29.9	39.0		31.1
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 14	* 32	16.0	11.4	* 14	* 32		33.4
Max Q Clear Time (g_c+I1), s	6.4	17.9	10.3	7.1	3.6	23.5		6.3
Green Ext Time (p_c), s	0.1	2.8	0.2	0.1	0.0	3.2		0.2

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	1123	51	169	772	78	62	63	68	139	91	231
Future Volume (veh/h)	143	1123	51	169	772	78	62	63	68	139	91	231
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	155	1221	55	184	839	85	67	68	74	151	99	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	222	1619	502	519	1731	772	165	134	114	184	439	
HCM 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
Prop Arrive On Green	0.06	0.32	0.32	0.23	0.49	0.49	0.07	0.07	0.07	0.10	0.23	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	47.3	34.0	24.6	29.0	18.2	14.2	46.0	45.8	18.4	54.4	31.0	0.0
Ln Grp LOS	D	C	C	C	B	B	D	D	B	D	C	
Approach Vol, veh/h		1431			1108			209			250	
Approach Delay, s/veh		35.1			19.7			36.2			45.1	
Approach LOS		D			B			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	6	5		8
Case No	2.0	3.0	2.0	5.3	3.0	1.3		3.0
Phs Duration (G+Y+Rc), s	12.9	56.0	16.3	14.8	39.0	29.9		31.1
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 14	* 32	16.0	11.4	* 32	* 14		33.4
Max Allow Headway (MAH), s	2.5	3.5	3.8	2.6	3.6	1.3		3.4
Max Q Clear (g_c+I1), s	6.4	17.9	10.3	7.1	23.5	3.6		6.3
Green Ext Time (g_e), s	0.1	2.8	0.2	0.1	3.2	0.0		0.2
Prob of Phs Call (p_c)	0.99	1.00	0.98	1.00	1.00	0.99		1.00
Prob of Max Out (p_x)	0.00	0.00	0.19	0.12	0.00	0.01		0.00

Left-Turn Movement Data						
Assigned Mvmt	1		3	7		5
Mvmt Sat Flow, veh/h	3456		1781	1296		1781

Through Movement Data								
Assigned Mvmt			2		4	6		8
Mvmt Sat Flow, veh/h			3554		1870	5106		1870

Right-Turn Movement Data								
Assigned Mvmt			12		14	16		18
Mvmt Sat Flow, veh/h			1585		1585	1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L (Prot)	L		L (Pr/Pm)		

Lanes in Grp	2	0	1	1	0	1	0	0
Grp Vol (v), veh/h	155	0	151	67	0	184	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1296	0	1781	0	0
Q Serve Time (g_s), s	4.4	0.0	8.3	5.1	0.0	1.6	0.0	0.0
Cycle Q Clear Time (g_c), s	4.4	0.0	8.3	5.1	0.0	1.6	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1296	0	434	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	7.2	0.0	31.7	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	7.2	0.0	10.2	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	5.1	0.0	10.2	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	222	0	184	165	0	519	0	0
V/C Ratio (X)	0.70	0.00	0.82	0.41	0.00	0.35	0.00	0.00
Avail Cap (c_a), veh/h	467	0	285	220	0	519	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	45.8	0.0	43.9	45.4	0.0	28.8	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.0	10.5	0.6	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	47.3	0.0	54.4	46.0	0.0	29.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.8	0.0	3.6	1.6	0.0	3.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.8	0.0	4.2	1.6	0.0	3.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.11	0.00	0.46	0.26	0.00	0.31	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	839	0	68	1221	0	0	99
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	15.9	0.0	3.5	21.5	0.0	0.0	4.3
Cycle Q Clear Time (g_c), s	0.0	15.9	0.0	3.5	21.5	0.0	0.0	4.3
Lane Grp Cap (c), veh/h	0	1731	0	134	1619	0	0	439
V/C Ratio (X)	0.00	0.48	0.00	0.51	0.75	0.00	0.00	0.23
Avail Cap (c_a), veh/h	0	1731	0	213	1619	0	0	625
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.2	0.0	44.7	30.7	0.0	0.0	30.9
Incr Delay (d2), s/veh	0.0	1.0	0.0	1.1	3.3	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.2	0.0	45.8	34.0	0.0	0.0	31.0
1st-Term Q (Q1), veh/ln	0.0	5.8	0.0	1.6	8.1	0.0	0.0	1.9
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.5	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.0	0.0	1.7	8.6	0.0	0.0	1.9
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.07	0.18	0.00	0.00	0.22
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	85	0	74	55	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	2.9	0.0	2.7	2.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	2.9	0.0	2.7	2.5	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	772	0	114	502	0	0	372
V/C Ratio (X)	0.00	0.11	0.00	0.65	0.11	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	772	0	181	502	0	0	529
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.9	0.0	16.1	24.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	2.3	0.4	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.2	0.0	18.4	24.6	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.0	0.0	1.7	0.9	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.1	0.0	1.8	0.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.29	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1110	315	393	662	10	430	57	159	28	135	108
Future Volume (veh/h)	63	1110	315	393	662	10	430	57	159	28	135	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1207	342	427	720	11	467	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	1419	441	454	1679	749	511	635	283	98	217	
Arrive On Green	0.04	0.28	0.28	0.26	0.47	0.47	0.15	0.18	0.18	0.03	0.06	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	68	1207	342	427	720	11	467	62	173	30	147	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.9	22.4	19.9	23.5	13.4	0.4	13.3	1.5	10.1	0.9	4.1	0.0
Cycle Q Clear(g_c), s	1.9	22.4	19.9	23.5	13.4	0.4	13.3	1.5	10.1	0.9	4.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	147	1419	441	454	1679	749	511	635	283	98	217	
V/C Ratio(X)	0.46	0.85	0.78	0.94	0.43	0.01	0.91	0.10	0.61	0.31	0.68	
Avail Cap(c_a), veh/h	425	1419	441	465	1679	749	511	635	283	470	281	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.8	34.1	33.2	36.5	17.4	14.0	42.0	34.3	37.9	47.6	46.0	0.0
Incr Delay (d2), s/veh	0.8	6.6	12.6	26.6	0.8	0.0	20.4	0.0	2.8	0.7	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	9.4	9.0	12.8	5.1	0.1	7.1	0.6	4.1	0.4	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	40.7	45.8	63.1	18.2	14.0	62.4	34.3	40.6	48.3	48.1	0.0
LnGrp LOS	D	D	D	E	B	B	E	C	D	D	D	
Approach Vol, veh/h		1617			1158			702			177	A
Approach Delay, s/veh		42.1			34.7			54.5			48.1	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	53.9	9.2	25.0	31.4	34.4	21.0	13.2
Change Period (Y+Rc), s	* 7.7	6.6	6.4	* 7.1	5.9	* 6.6	* 6.2	7.1
Max Green Setting (Gmax), s	* 12	37.4	13.6	* 9.9	26.1	* 26	* 15	7.9
Max Q Clear Time (g_c+I1), s	3.9	15.4	2.9	12.1	25.5	24.4	15.3	6.1
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	0.0	0.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1110	315	393	662	10	430	57	159	28	135	108
Future Volume (veh/h)	63	1110	315	393	662	10	430	57	159	28	135	108
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1207	342	427	720	11	467	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	147	1419	441	454	1679	749	511	635	283	98	217	
HCM 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
Prop Arrive On Green	0.04	0.28	0.28	0.26	0.47	0.47	0.15	0.18	0.18	0.03	0.06	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	47.6	40.7	45.8	63.1	18.2	14.0	62.4	34.3	40.6	48.3	48.1	0.0
Ln Grp LOS	D	D	D	E	B	B	E	C	D	D	D	
Approach Vol, veh/h		1617			1158			702			177	
Approach Delay, s/veh		42.1			34.7			54.5			48.1	
Approach LOS		D			C			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	11.9	53.9	9.2	25.0	31.4	34.4	21.0	13.2
Change Period (Y+Rc), s	* 7.7	6.6	6.4	* 7.1	5.9	* 6.6	* 6.2	7.1
Max Green (Gmax), s	* 12	37.4	13.6	* 9.9	26.1	* 26	* 15	7.9
Max Allow Headway (MAH), s	1.3	3.6	1.6	2.6	1.3	3.4	1.4	3.1
Max Q Clear (g_c+I1), s	3.9	15.4	2.9	12.1	25.5	24.4	15.3	6.1
Green Ext Time (g_e), s	0.0	2.5	0.0	0.0	0.0	0.7	0.0	0.1
Prob of Phs Call (p_c)	0.85	1.00	0.57	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	3456		3456		1781		3456	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3554		3554		5106		3554

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	2	0	2	0	1	0	2	0
Grp Vol (v), veh/h	68	0	30	0	427	0	467	0
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1781	0	1728	0
Q Serve Time (g_s), s	1.9	0.0	0.9	0.0	23.5	0.0	13.3	0.0
Cycle Q Clear Time (g_c), s	1.9	0.0	0.9	0.0	23.5	0.0	13.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	147	0	98	0	454	0	511	0
V/C Ratio (X)	0.46	0.00	0.31	0.00	0.94	0.00	0.91	0.00
Avail Cap (c_a), veh/h	425	0	470	0	465	0	511	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	46.8	0.0	47.6	0.0	36.5	0.0	42.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.7	0.0	26.6	0.0	20.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	47.6	0.0	48.3	0.0	63.1	0.0	62.4	0.0
1st-Term Q (Q1), veh/ln	0.8	0.0	0.4	0.0	9.5	0.0	5.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	3.4	0.0	1.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.8	0.0	0.4	0.0	12.8	0.0	7.1	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.04	0.00	1.45	0.00	0.69	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	3	0	2
Grp Vol (v), veh/h	0	720	0	62	0	1207	0	147
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1702	0	1777
Q Serve Time (g_s), s	0.0	13.4	0.0	1.5	0.0	22.4	0.0	4.1
Cycle Q Clear Time (g_c), s	0.0	13.4	0.0	1.5	0.0	22.4	0.0	4.1
Lane Grp Cap (c), veh/h	0	1679	0	635	0	1419	0	217
V/C Ratio (X)	0.00	0.43	0.00	0.10	0.00	0.85	0.00	0.68
Avail Cap (c_a), veh/h	0	1679	0	635	0	1419	0	281
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.4	0.0	34.3	0.0	34.1	0.0	46.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	0.0	0.0	6.6	0.0	2.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.2	0.0	34.3	0.0	40.7	0.0	48.1
1st-Term Q (Q1), veh/ln	0.0	4.9	0.0	0.6	0.0	8.6	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.9	0.0	0.1

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.1	0.0	0.6	0.0	9.4	0.0	1.8
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.03	0.00	0.51	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	11	0	173	0	342	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.4	0.0	10.1	0.0	19.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	10.1	0.0	19.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	749	0	283	0	441	0	97
V/C Ratio (X)	0.00	0.01	0.00	0.61	0.00	0.78	0.00	0.00
Avail Cap (c_a), veh/h	0	749	0	283	0	441	0	125
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	14.0	0.0	37.9	0.0	33.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.8	0.0	12.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.0	0.0	40.6	0.0	45.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	3.9	0.0	7.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	1.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	4.1	0.0	9.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.40	0.00	1.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	876	280	166	625	337	344	110	161	447	141	205
Future Volume (veh/h)	129	876	280	166	625	337	344	110	161	447	141	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	140	952	304	180	679	366	374	120	175	486	153	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	1292	576	247	1207	538	437	240	204	547	300	254
Arrive On Green	0.10	0.36	0.36	0.07	0.34	0.34	0.13	0.13	0.13	0.16	0.16	0.16
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	140	952	304	180	679	366	374	120	175	486	153	223
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	7.7	23.3	15.1	5.1	15.6	19.8	10.6	6.0	10.8	13.8	7.5	13.7
Cycle Q Clear(g_c), s	7.7	23.3	15.1	5.1	15.6	19.8	10.6	6.0	10.8	13.8	7.5	13.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	1292	576	247	1207	538	437	240	204	547	300	254
V/C Ratio(X)	0.82	0.74	0.53	0.73	0.56	0.68	0.86	0.50	0.86	0.89	0.51	0.88
Avail Cap(c_a), veh/h	260	1292	576	435	1207	538	460	249	211	563	305	258
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	27.7	25.1	45.5	27.0	28.4	42.8	40.6	42.7	41.2	38.4	41.0
Incr Delay (d2), s/veh	6.8	3.8	3.4	1.5	1.9	6.8	13.3	0.6	26.1	15.1	0.5	25.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	9.7	6.1	2.1	6.4	8.4	5.3	2.8	5.7	6.9	3.4	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	31.4	28.5	47.0	28.9	35.1	56.1	41.2	68.8	56.3	38.9	66.8
LnGrp LOS	D	C	C	D	C	D	E	D	E	E	D	E
Approach Vol, veh/h		1396			1225			669			862	
Approach Delay, s/veh		32.8			33.4			56.8			55.9	
Approach LOS		C			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	41.0	22.5	19.6	14.5	43.4	19.3	22.7
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 15	28.0	* 16	* 13	* 13	30.0	* 13	* 16
Max Q Clear Time (g_c+I1), s	9.7	21.8	15.8	12.8	7.1	25.3	12.6	15.7
Green Ext Time (p_c), s	0.0	1.9	0.1	0.0	0.1	2.0	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	41.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	876	280	166	625	337	344	110	161	447	141	205
Future Volume (veh/h)	129	876	280	166	625	337	344	110	161	447	141	205
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	140	952	304	180	679	366	374	120	175	486	153	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	170	1292	576	247	1207	538	437	240	204	547	300	254
HCM 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
Prop Arrive On Green	0.10	0.36	0.36	0.07	0.34	0.34	0.13	0.13	0.13	0.16	0.16	0.16
Unsig. Movement Delay												
Ln Grp Delay, s/veh	51.2	31.4	28.5	47.0	28.9	35.1	56.1	41.2	68.8	56.3	38.9	66.8
Ln Grp LOS	D	C	C	D	C	D	E	D	E	E	D	E
Approach Vol, veh/h		1396			1225			669			862	
Approach Delay, s/veh		32.8			33.4			56.8			55.9	
Approach LOS		C			C			E			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	17.0	41.0	22.5	19.6	14.5	43.4	19.3	22.7
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green (Gmax), s	* 15	28.0	* 16	* 13	* 13	30.0	* 13	* 16
Max Allow Headway (MAH), s	2.2	3.4	2.3	3.5	2.2	3.5	2.2	3.4
Max Q Clear (g_c+I1), s	9.7	21.8	15.8	12.8	7.1	25.3	12.6	15.7
Green Ext Time (g_e), s	0.0	1.9	0.1	0.0	0.1	2.0	0.0	0.1
Prob of Phs Call (p_c)	0.98	1.00	1.00	1.00	0.99	1.00	1.00	1.00
Prob of Max Out (p_x)	0.01	0.00	1.00	1.00	0.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	1781		3456		3456		3456	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3554		1870		3554		1870

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	1	0	2	0	2	0	2	0
Grp Vol (v), veh/h	140	0	486	0	180	0	374	0
Grp Sat Flow (s), veh/h/ln	1781	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	7.7	0.0	13.8	0.0	5.1	0.0	10.6	0.0
Cycle Q Clear Time (g_c), s	7.7	0.0	13.8	0.0	5.1	0.0	10.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	170	0	547	0	247	0	437	0
V/C Ratio (X)	0.82	0.00	0.89	0.00	0.73	0.00	0.86	0.00
Avail Cap (c_a), veh/h	260	0	563	0	435	0	460	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	44.4	0.0	41.2	0.0	45.5	0.0	42.8	0.0
Incr Delay (d2), s/veh	6.8	0.0	15.1	0.0	1.5	0.0	13.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	51.2	0.0	56.3	0.0	47.0	0.0	56.1	0.0
1st-Term Q (Q1), veh/ln	3.2	0.0	5.8	0.0	2.1	0.0	4.5	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	1.1	0.0	0.1	0.0	0.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.6	0.0	6.9	0.0	2.1	0.0	5.3	0.0
%ile Storage Ratio (RQ%)	0.18	0.00	0.88	0.00	0.22	0.00	0.52	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	679	0	120	0	952	0	153
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	15.6	0.0	6.0	0.0	23.3	0.0	7.5
Cycle Q Clear Time (g_c), s	0.0	15.6	0.0	6.0	0.0	23.3	0.0	7.5
Lane Grp Cap (c), veh/h	0	1207	0	240	0	1292	0	300
V/C Ratio (X)	0.00	0.56	0.00	0.50	0.00	0.74	0.00	0.51
Avail Cap (c_a), veh/h	0	1207	0	249	0	1292	0	305
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	27.0	0.0	40.6	0.0	27.7	0.0	38.4
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.6	0.0	3.8	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.9	0.0	41.2	0.0	31.4	0.0	38.9
1st-Term Q (Q1), veh/ln	0.0	6.1	0.0	2.8	0.0	9.0	0.0	3.4
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.7	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.4	0.0	2.8	0.0	9.7	0.0	3.4
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.15	0.00	0.23	0.00	0.27
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	366	0	175	0	304	0	223
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	19.8	0.0	10.8	0.0	15.1	0.0	13.7
Cycle Q Clear Time (g_c), s	0.0	19.8	0.0	10.8	0.0	15.1	0.0	13.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	538	0	204	0	576	0	254
V/C Ratio (X)	0.00	0.68	0.00	0.86	0.00	0.53	0.00	0.88
Avail Cap (c_a), veh/h	0	538	0	211	0	576	0	258
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	28.4	0.0	42.7	0.0	25.1	0.0	41.0
Incr Delay (d2), s/veh	0.0	6.8	0.0	26.1	0.0	3.4	0.0	25.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	35.1	0.0	68.8	0.0	28.5	0.0	66.8
1st-Term Q (Q1), veh/ln	0.0	7.4	0.0	4.2	0.0	5.6	0.0	5.3
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	1.5	0.0	0.5	0.0	1.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	8.4	0.0	5.7	0.0	6.1	0.0	7.1
%ile Storage Ratio (RQ%)	0.00	0.87	0.00	0.56	0.00	0.30	0.00	1.81
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	41.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	991	183	222	160
Future Volume (veh/h)	166	0	991	183	222	160
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1077	199	241	174
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	364	0	2155	961	277	246
Arrive On Green	0.06	0.00	0.61	0.61	0.16	0.16
Sat Flow, veh/h	1781	180	3647	1585	1781	1585
Grp Volume(v), veh/h	180	9.1	1077	199	241	174
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	3.8		17.1	5.7	13.2	10.4
Cycle Q Clear(g_c), s	3.8		17.1	5.7	13.2	10.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	364		2155	961	277	246
V/C Ratio(X)	0.49		0.50	0.21	0.87	0.71
Avail Cap(c_a), veh/h	492		2155	961	445	396
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8		11.1	8.9	41.2	40.1
Incr Delay (d2), s/veh	0.4		0.8	0.5	6.1	1.4
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1		5.8	1.8	6.2	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.1		11.9	9.3	47.4	41.4
LnGrp LOS	A		B	A	D	D
Approach Vol, veh/h			1276		415	
Approach Delay, s/veh			11.5		44.9	
Approach LOS			B		D	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	11.8	66.6				21.5
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	13.0	44.0				25.0
Max Q Clear Time (g_c+I1), s	5.8	19.1				15.2
Green Ext Time (p_c), s	0.1	3.6				0.3

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	991	183	222	160
Future Volume (veh/h)	166	0	991	183	222	160
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1077	199	241	174
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	364	0	2155	961	277	246
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.00	0.61	0.61	0.16	0.16
Unsig. Movement Delay						
Ln Grp Delay, s/veh	9.1	0.0	11.9	9.3	47.4	41.4
Ln Grp LOS	A	A	B	A	D	D
Approach Vol, veh/h		180	1276		415	
Approach Delay, s/veh		9.1	11.5		44.9	
Approach LOS		A	B		D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	11.8	66.6	21.5					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	44.0	25.0					
Max Allow Headway (MAH), s	2.2	3.2	2.4					
Max Q Clear (g_c+I1), s	5.8	19.1	15.2					
Green Ext Time (g_e), s	0.1	3.6	0.3					
Prob of Phs Call (p_c)	0.99	1.00	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	180	0	241	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	3.8	0.0	13.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.8	0.0	13.2	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	434	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	60.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	43.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	60.6	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	364	0	277	0	0	0	0	0
V/C Ratio (X)	0.49	0.00	0.87	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	492	0	445	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.8	0.0	41.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	6.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	9.1	0.0	47.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.1	0.0	5.7	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.1	0.0	6.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.11	0.00	0.36	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1077	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	17.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	17.1	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2155	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2155	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	199	174	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	5.7	10.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.7	10.4	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	961	246	0	0	0	0	0
V/C Ratio (X)	0.00	0.21	0.71	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	961	396	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.9	40.1	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	1.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.3	41.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.6	4.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.8	4.1	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.41	0.24	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		18.7						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	3	35	58	0	0	4	267	66	0	267	39
Future Vol, veh/h	59	3	35	58	0	0	4	267	66	0	267	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	3	38	63	0	0	4	290	72	0	290	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	464	681	166	481	666	181	332	0	0	362	0	0
Stage 1	311	311	-	334	334	-	-	-	-	-	-	-
Stage 2	153	370	-	147	332	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	481	371	849	468	379	831	1224	-	-	1193	-	-
Stage 1	674	657	-	653	642	-	-	-	-	-	-	-
Stage 2	834	619	-	841	643	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	480	370	849	443	378	831	1224	-	-	1193	-	-
Mov Cap-2 Maneuver	480	370	-	443	378	-	-	-	-	-	-	-
Stage 1	672	657	-	651	640	-	-	-	-	-	-	-
Stage 2	831	617	-	799	643	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	14.5	0.1	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1224	-	-	480	770	443	-	1193	-	-
HCM Lane V/C Ratio	0.004	-	-	0.134	0.054	0.142	-	-	-	-
HCM Control Delay (s)	8	-	-	13.7	9.9	14.5	0	0	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0.5	-	0	-	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	212	114	95	0	0	211
Future Vol, veh/h	212	114	95	0	0	211
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	230	124	103	0	0	229

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	103	0	-	0	625	52
Stage 1	-	-	-	-	103	-
Stage 2	-	-	-	-	522	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1487	-	-	-	417	1005
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	560	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1487	-	-	-	352	1005
Mov Cap-2 Maneuver	-	-	-	-	352	-
Stage 1	-	-	-	-	769	-
Stage 2	-	-	-	-	560	-

Approach	EB	WB	SB
HCM Control Delay, s	5.1	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1487	-	-	-	1005
HCM Lane V/C Ratio	0.155	-	-	-	0.228
HCM Control Delay (s)	7.9	-	-	-	9.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.9

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	20	56	1	0	12	100	100	0	135	2
Future Vol, veh/h	0	0	20	56	1	0	12	100	100	0	135	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	61	1	0	13	109	109	0	147	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	338	392	148	349	339	164	149	0	0	218	0	0
Stage 1	148	148	-	190	190	-	-	-	-	-	-	-
Stage 2	190	244	-	159	149	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	616	544	899	606	582	881	1432	-	-	1352	-	-
Stage 1	855	775	-	812	743	-	-	-	-	-	-	-
Stage 2	812	704	-	843	774	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	610	539	899	587	576	881	1432	-	-	1352	-	-
Mov Cap-2 Maneuver	610	539	-	587	576	-	-	-	-	-	-	-
Stage 1	846	775	-	804	736	-	-	-	-	-	-	-
Stage 2	803	697	-	823	774	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	11.9	0.4	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1432	-	-	899	587	1352	-	-
HCM Lane V/C Ratio	0.009	-	-	0.024	0.106	-	-	-
HCM Control Delay (s)	7.5	0	-	9.1	11.9	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	47	33	0	11	51	348	51	7	380	4
Future Vol, veh/h	3	0	47	33	0	11	51	348	51	7	380	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	51	36	0	12	55	378	55	8	413	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	953	974	415	973	949	406	417	0	0	433	0	0
Stage 1	431	431	-	516	516	-	-	-	-	-	-	-
Stage 2	522	543	-	457	433	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	239	252	637	231	260	645	1142	-	-	1127	-	-
Stage 1	603	583	-	542	534	-	-	-	-	-	-	-
Stage 2	538	520	-	583	582	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	222	234	637	201	242	645	1142	-	-	1127	-	-
Mov Cap-2 Maneuver	222	234	-	201	242	-	-	-	-	-	-	-
Stage 1	564	579	-	507	500	-	-	-	-	-	-	-
Stage 2	494	487	-	532	578	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	23.4	0.9	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1142	-	-	573	243	1127	-	-
HCM Lane V/C Ratio	0.049	-	-	0.095	0.197	0.007	-	-
HCM Control Delay (s)	8.3	0	-	11.9	23.4	8.2	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	0.7	0	-	-

2: Highland Blvd & 11800 North

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	92	145	0	92	90	363	167	119	339	7
Future Volume (veh/h)	5	0	92	145	0	92	90	363	167	119	339	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	100	158	0	100	98	395	182	129	368	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	404	0	354	404	0	354	524	574	264	365	863	19
Arrive On Green	0.22	0.00	0.22	0.22	0.00	0.22	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1295	0	1585	1295	0	1585	1007	1212	558	836	1824	40
Grp Volume(v), veh/h	5	0	100	158	0	100	98	0	577	129	0	376
Grp Sat Flow(s),veh/h/ln	1295	0	1585	1295	0	1585	1007	0	1770	836	0	1863
Q Serve(g_s), s	0.1	0.0	2.1	4.6	0.0	2.1	2.8	0.0	10.1	5.6	0.0	5.3
Cycle Q Clear(g_c), s	2.2	0.0	2.1	6.6	0.0	2.1	8.1	0.0	10.1	15.7	0.0	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		0.02
Lane Grp Cap(c), veh/h	404	0	354	404	0	354	524	0	838	365	0	882
V/C Ratio(X)	0.01	0.00	0.28	0.39	0.00	0.28	0.19	0.00	0.69	0.35	0.00	0.43
Avail Cap(c_a), veh/h	866	0	920	866	0	920	683	0	1117	497	0	1176
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.7	0.0	12.7	15.5	0.0	12.7	9.5	0.0	8.1	14.3	0.0	6.9
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.2	0.0	0.2	0.1	0.0	0.5	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	1.1	0.0	0.6	0.5	0.0	2.6	0.9	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.7	0.0	12.9	15.7	0.0	12.9	9.6	0.0	8.7	14.5	0.0	7.0
LnGrp LOS	B	A	B	B	A	B	A	A	A	B	A	A
Approach Vol, veh/h		105			258			675			505	
Approach Delay, s/veh		12.9			14.6			8.8			8.9	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	24.8	14.9	24.8	14.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	25.0	23.0	25.0	23.0
Max Q Clear Time (g_c+I1), s	12.1	4.2	17.7	8.6
Green Ext Time (p_c), s	1.9	0.3	1.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

2: Highland Blvd & 11800 North

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	92	145	0	92	90	363	167	119	339	7
Future Volume (veh/h)	5	0	92	145	0	92	90	363	167	119	339	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	100	158	0	100	98	395	182	129	368	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	404	0	354	404	0	354	524	574	264	365	863	19
HCM 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
Prop Arrive On Green	0.22	0.00	0.22	0.22	0.00	0.22	0.47	0.47	0.47	0.47	0.47	0.47
Unsig. Movement Delay												
Ln Grp Delay, s/veh	13.7	0.0	12.9	15.7	0.0	12.9	9.6	0.0	8.7	14.5	0.0	7.0
Ln Grp LOS	B	A	B	B	A	B	A	A	A	B	A	A
Approach Vol, veh/h		105			258			675			505	
Approach Delay, s/veh		12.9			14.6			8.8			8.9	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		24.8		14.9		24.8		14.9
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		25.0		23.0		25.0		23.0
Max Allow Headway (MAH), s		3.8		4.0		3.8		3.1
Max Q Clear (g_c+I1), s		12.1		4.2		17.7		8.6
Green Ext Time (g_e), s		1.9		0.3		1.0		0.4
Prob of Phs Call (p_c)		1.00		0.98		1.00		0.98
Prob of Max Out (p_x)		0.05		0.00		0.22		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1007		1295		836		1295
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1212		0		1824		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		558		1585		40		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	98	0	5	0	129	0	158
Grp Sat Flow (s), veh/h/ln	0	1007	0	1295	0	836	0	1295
Q Serve Time (g_s), s	0.0	2.8	0.0	0.1	0.0	5.6	0.0	4.6
Cycle Q Clear Time (g_c), s	0.0	8.1	0.0	2.2	0.0	15.7	0.0	6.6
Perm LT Sat Flow (s_l), veh/h/ln	0	1007	0	1295	0	836	0	1295
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.8	0.0	8.9	0.0	18.8	0.0	8.9
Perm LT Serve Time (g_u), s	0.0	13.5	0.0	6.8	0.0	8.7	0.0	6.8
Perm LT Q Serve Time (g_ps), s	0.0	2.8	0.0	0.1	0.0	5.6	0.0	4.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	524	0	404	0	365	0	404
V/C Ratio (X)	0.00	0.19	0.00	0.01	0.00	0.35	0.00	0.39
Avail Cap (c_a), veh/h	0	683	0	866	0	497	0	866
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.5	0.0	13.7	0.0	14.3	0.0	15.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.6	0.0	13.7	0.0	14.5	0.0	15.7
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.0	0.0	0.9	0.0	1.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	0.0	0.0	0.9	0.0	1.1
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.01	0.00	0.23	0.00	0.29
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	577	0	100	0	376	0	100
Grp Sat Flow (s), veh/h/ln	0	1770	0	1585	0	1863	0	1585
Q Serve Time (g_s), s	0.0	10.1	0.0	2.1	0.0	5.3	0.0	2.1
Cycle Q Clear Time (g_c), s	0.0	10.1	0.0	2.1	0.0	5.3	0.0	2.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.32	0.00	1.00	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	838	0	354	0	882	0	354
V/C Ratio (X)	0.00	0.69	0.00	0.28	0.00	0.43	0.00	0.28
Avail Cap (c_a), veh/h	0	1117	0	920	0	1176	0	920
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.1	0.0	12.7	0.0	6.9	0.0	12.7
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.2	0.0	0.1	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.7	0.0	12.9	0.0	7.0	0.0	12.9
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	0.6	0.0	1.4	0.0	0.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.6	0.0	0.6	0.0	1.4	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.03	0.00	0.02	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		10.1						
HCM 6th LOS		B						

3: Highland Blvd & SR - 92

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	422	1980	54	237	849	160	105	179	178	165	120	223
Future Volume (veh/h)	422	1980	54	237	849	160	105	179	178	165	120	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	459	2152	59	258	923	174	114	195	193	179	130	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	519	2242	696	529	1977	882	201	209	177	205	518	
Arrive On Green	0.15	0.44	0.44	0.26	0.56	0.56	0.11	0.11	0.11	0.12	0.28	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1260	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	459	2152	59	258	923	174	114	195	193	179	130	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1260	1870	1585	1781	1870	1585
Q Serve(g_s), s	15.6	49.0	2.6	9.9	18.7	6.6	10.6	12.4	10.0	11.9	6.5	0.0
Cycle Q Clear(g_c), s	15.6	49.0	2.6	9.9	18.7	6.6	10.6	12.4	10.0	11.9	6.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	519	2242	696	529	1977	882	201	209	177	205	518	
V/C Ratio(X)	0.89	0.96	0.08	0.49	0.47	0.20	0.57	0.93	1.09	0.87	0.25	
Avail Cap(c_a), veh/h	648	2242	696	529	1977	882	201	209	177	208	521	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.0	32.6	19.6	35.2	16.0	13.3	52.1	52.9	29.9	52.2	33.7	0.0
Incr Delay (d2), s/veh	10.3	11.6	0.2	0.3	0.8	0.5	2.4	43.4	93.9	30.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	20.9	1.0	6.0	7.1	0.1	3.5	8.3	8.5	7.0	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	44.3	19.8	35.4	16.8	13.8	54.4	96.3	123.7	82.7	33.8	0.0
LnGrp LOS	E	D	B	D	B	B	D	F	F	F	C	
Approach Vol, veh/h		2670			1355			502			309	A
Approach Delay, s/veh		46.5			19.9			97.3			62.1	
Approach LOS		D			B			F			E	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	24.5	74.1	19.8	21.0	38.6	60.0		40.8
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 23	* 43	14.0	13.4	* 13	* 53		33.4
Max Q Clear Time (g_c+I1), s	17.6	20.7	13.9	14.4	11.9	51.0		8.5
Green Ext Time (p_c), s	0.4	3.6	0.0	0.0	0.0	1.4		0.3

Intersection Summary	
HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	422	1980	54	237	849	160	105	179	178	165	120	223
Future Volume (veh/h)	422	1980	54	237	849	160	105	179	178	165	120	223
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	459	2152	59	258	923	174	114	195	193	179	130	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	519	2242	696	529	1977	882	201	209	177	205	518	
HCM 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
Prop Arrive On Green	0.15	0.44	0.44	0.26	0.56	0.56	0.11	0.11	0.11	0.12	0.28	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	60.3	44.3	19.8	35.4	16.8	13.8	54.4	96.3	123.7	82.7	33.8	0.0
Ln Grp LOS	E	D	B	D	B	B	D	F	F	F	C	
Approach Vol, veh/h		2670			1355			502			309	
Approach Delay, s/veh		46.5			19.9			97.3			62.1	
Approach LOS		D			B			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	6	5		8
Case No	2.0	3.0	2.0	5.3	3.0	1.3		3.0
Phs Duration (G+Y+Rc), s	24.5	74.1	19.8	21.0	60.0	38.6		40.8
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 23	* 43	14.0	13.4	* 53	* 13		33.4
Max Allow Headway (MAH), s	2.5	3.5	3.8	2.7	3.6	1.3		3.4
Max Q Clear (g_c+I1), s	17.6	20.7	13.9	14.4	51.0	11.9		8.5
Green Ext Time (g_e), s	0.4	3.6	0.0	0.0	1.4	0.0		0.3
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.08	0.00	1.00	1.00	0.00	1.00		0.00

Left-Turn Movement Data						
Assigned Mvmt	1		3	7		5
Mvmt Sat Flow, veh/h	3456		1781	1260		1781

Through Movement Data								
Assigned Mvmt			2		4	6		8
Mvmt Sat Flow, veh/h			3554		1870	5106		1870

Right-Turn Movement Data								
Assigned Mvmt			12		14	16		18
Mvmt Sat Flow, veh/h			1585		1585	1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L (Prot)	L		L (Pr/Pm)		

Lanes in Grp	2	0	1	1	0	1	0	0
Grp Vol (v), veh/h	459	0	179	114	0	258	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1260	0	1781	0	0
Q Serve Time (g_s), s	15.6	0.0	11.9	10.6	0.0	9.9	0.0	0.0
Cycle Q Clear Time (g_c), s	15.6	0.0	11.9	10.6	0.0	9.9	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1260	0	175	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	13.4	0.0	52.7	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	13.4	0.0	3.7	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	10.6	0.0	3.7	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	519	0	205	201	0	529	0	0
V/C Ratio (X)	0.89	0.00	0.87	0.57	0.00	0.49	0.00	0.00
Avail Cap (c_a), veh/h	648	0	208	201	0	529	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	50.0	0.0	52.2	52.1	0.0	35.2	0.0	0.0
Incr Delay (d2), s/veh	10.3	0.0	30.5	2.4	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	60.3	0.0	82.7	54.4	0.0	35.4	0.0	0.0
1st-Term Q (Q1), veh/ln	6.5	0.0	5.3	3.3	0.0	5.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.7	0.0	1.7	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	7.2	0.0	7.0	3.5	0.0	6.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.42	0.00	0.78	0.55	0.00	0.56	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	923	0	195	2152	0	0	130
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	18.7	0.0	12.4	49.0	0.0	0.0	6.5
Cycle Q Clear Time (g_c), s	0.0	18.7	0.0	12.4	49.0	0.0	0.0	6.5
Lane Grp Cap (c), veh/h	0	1977	0	209	2242	0	0	518
V/C Ratio (X)	0.00	0.47	0.00	0.93	0.96	0.00	0.00	0.25
Avail Cap (c_a), veh/h	0	1977	0	209	2242	0	0	521
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.0	0.0	52.9	32.6	0.0	0.0	33.7
Incr Delay (d2), s/veh	0.0	0.8	0.0	43.4	11.6	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.8	0.0	96.3	44.3	0.0	0.0	33.8
1st-Term Q (Q1), veh/ln	0.0	6.9	0.0	5.8	18.5	0.0	0.0	3.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	2.5	2.4	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.1	0.0	8.3	20.9	0.0	0.0	3.0
%ile Storage Ratio (RQ%)	0.00	0.14	0.00	0.33	0.43	0.00	0.00	0.33
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	174	0	193	59	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	6.6	0.0	10.0	2.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	6.6	0.0	10.0	2.6	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	882	0	177	696	0	0	439
V/C Ratio (X)	0.00	0.20	0.00	1.09	0.08	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	882	0	177	696	0	0	441
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.3	0.0	29.9	19.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	93.9	0.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.8	0.0	123.7	19.8	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.8	0.9	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	4.6	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	8.5	1.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	1.34	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1970	390	247	929	1	392	17	231	121	179	478
Future Volume (veh/h)	19	1970	390	247	929	1	392	17	231	121	179	478
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	2141	424	268	1010	1	426	18	251	132	195	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1529	3876	1203	284	1670	745	455	504	225	186	234	
Arrive On Green	0.44	0.76	0.76	0.16	0.47	0.47	0.13	0.14	0.14	0.05	0.07	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	21	2141	424	268	1010	1	426	18	251	132	195	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.4	20.9	10.6	17.9	25.3	0.1	14.7	0.5	17.0	4.5	6.5	0.0
Cycle Q Clear(g_c), s	0.4	20.9	10.6	17.9	25.3	0.1	14.7	0.5	17.0	4.5	6.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1529	3876	1203	284	1670	745	455	504	225	186	234	
V/C Ratio(X)	0.01	0.55	0.35	0.95	0.60	0.00	0.94	0.04	1.12	0.71	0.83	
Avail Cap(c_a), veh/h	1529	3876	1203	284	1670	745	455	504	225	392	234	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.8	6.0	4.8	49.9	23.5	30.1	51.6	44.4	51.5	55.8	55.4	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.8	38.5	1.6	0.0	26.6	0.0	94.5	1.9	20.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.5	3.2	10.7	10.2	0.0	8.0	0.2	12.6	2.0	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	6.6	5.6	88.4	25.2	30.1	78.2	44.4	146.0	57.7	76.3	0.0
LnGrp LOS	B	A	A	F	C	C	E	D	F	E	E	
Approach Vol, veh/h		2586			1279			695			327	A
Approach Delay, s/veh		6.5			38.4			101.8			68.8	
Approach LOS		A			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	62.0	63.0	12.9	24.1	25.0	100.0	22.0	15.0
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 7.1	5.9	* 7.7	* 6.2	7.1
Max Green Setting (Gmax), s	12.3	* 56	13.6	* 11	19.1	* 52	* 16	7.9
Max Q Clear Time (g_c+I1), s	12.4	27.3	6.5	19.0	19.9	22.9	16.7	8.5
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.0	12.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1970	390	247	929	1	392	17	231	121	179	478
Future Volume (veh/h)	19	1970	390	247	929	1	392	17	231	121	179	478
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	2141	424	268	1010	1	426	18	251	132	195	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	1529	3876	1203	284	1670	745	455	504	225	186	234	
HCM 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
Prop Arrive On Green	0.44	0.76	0.76	0.16	0.47	0.47	0.13	0.14	0.14	0.05	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.8	6.6	5.6	88.4	25.2	30.1	78.2	44.4	146.0	57.7	76.3	0.0
Ln Grp LOS	B	A	A	F	C	C	E	D	F	E	E	
Approach Vol, veh/h		2586			1279			695			327	
Approach Delay, s/veh		6.5			38.4			101.8			68.8	
Approach LOS		A			D			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	3	4	5	6	7	8
Case No	3.0	2.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	63.0	62.0	12.9	24.1	25.0	100.0	22.0	15.0
Change Period (Y+Rc), s	* 6.6	7.7	6.4	* 7.1	5.9	* 7.7	* 6.2	7.1
Max Green (Gmax), s	* 56	12.3	13.6	* 11	19.1	* 52	* 16	7.9
Max Allow Headway (MAH), s	3.6	1.3	1.6	2.3	1.3	3.5	1.4	3.1
Max Q Clear (g_c+I1), s	27.3	2.4	6.5	19.0	19.9	22.9	16.7	8.5
Green Ext Time (g_e), s	3.9	0.0	0.0	0.0	0.0	12.6	0.0	0.0
Prob of Phs Call (p_c)	1.00	0.50	0.99	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt		1	3		5		7	
Mvmt Sat Flow, veh/h		3456	3456		1781		3456	

Through Movement Data								
Assigned Mvmt	2			4		6		8
Mvmt Sat Flow, veh/h	3554			3554		5106		3554

Right-Turn Movement Data								
Assigned Mvmt	12			14		16		18
Mvmt Sat Flow, veh/h	1585			1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	0	1	3	0	5	0	7	0
Lane Assignment		L (Prot)	L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	0	2	2	0	1	0	2	0
Grp Vol (v), veh/h	0	21	132	0	268	0	426	0
Grp Sat Flow (s), veh/h/ln	0	1728	1728	0	1781	0	1728	0
Q Serve Time (g_s), s	0.0	0.4	4.5	0.0	17.9	0.0	14.7	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	4.5	0.0	17.9	0.0	14.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	1529	186	0	284	0	455	0
V/C Ratio (X)	0.00	0.01	0.71	0.00	0.95	0.00	0.94	0.00
Avail Cap (c_a), veh/h	0	1529	392	0	284	0	455	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	18.8	55.8	0.0	49.9	0.0	51.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.9	0.0	38.5	0.0	26.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.8	57.7	0.0	88.4	0.0	78.2	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	2.0	0.0	7.6	0.0	6.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	3.0	0.0	1.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.2	2.0	0.0	10.7	0.0	8.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.22	0.00	1.20	0.00	0.78	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	0	8
Lane Assignment	T			T		T		T
Lanes in Grp	2	0	0	2	0	3	0	2
Grp Vol (v), veh/h	1010	0	0	18	0	2141	0	195
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	0	1777
Q Serve Time (g_s), s	25.3	0.0	0.0	0.5	0.0	20.9	0.0	6.5
Cycle Q Clear Time (g_c), s	25.3	0.0	0.0	0.5	0.0	20.9	0.0	6.5
Lane Grp Cap (c), veh/h	1670	0	0	504	0	3876	0	234
V/C Ratio (X)	0.60	0.00	0.00	0.04	0.00	0.55	0.00	0.83
Avail Cap (c_a), veh/h	1670	0	0	504	0	3876	0	234
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	23.5	0.0	0.0	44.4	0.0	6.0	0.0	55.4
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.0	0.0	0.6	0.0	20.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	25.2	0.0	0.0	44.4	0.0	6.6	0.0	76.3
1st-Term Q (Q1), veh/ln	9.8	0.0	0.0	0.2	0.0	5.3	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.7

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	10.2	0.0	0.0	0.2	0.0	5.5	0.0	3.6
%ile Storage Ratio (RQ%)	0.25	0.00	0.00	0.01	0.00	0.28	0.00	0.12
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	0	18
Lane Assignment	R			R		R		R
Lanes in Grp	1	0	0	1	0	1	0	1
Grp Vol (v), veh/h	1	0	0	251	0	424	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.1	0.0	0.0	17.0	0.0	10.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.1	0.0	0.0	17.0	0.0	10.6	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	745	0	0	225	0	1203	0	104
V/C Ratio (X)	0.00	0.00	0.00	1.12	0.00	0.35	0.00	0.00
Avail Cap (c_a), veh/h	745	0	0	225	0	1203	0	104
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	30.1	0.0	0.0	51.5	0.0	4.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	94.5	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	30.1	0.0	0.0	146.0	0.0	5.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.7	0.0	3.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	5.9	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	12.6	0.0	3.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	1.24	0.00	0.37	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

5: Center Street/8000 West & SR - 92

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	1291	205	194	799	434	327	141	218	373	119	164
Future Volume (veh/h)	214	1291	205	194	799	434	327	141	218	373	119	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	233	1403	223	211	868	472	355	153	237	405	129	178
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	1609	718	267	1366	609	408	207	176	441	225	190
Arrive On Green	0.15	0.45	0.45	0.08	0.38	0.38	0.12	0.11	0.11	0.13	0.12	0.12
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	233	1403	223	211	868	472	355	153	237	405	129	178
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	15.4	42.8	10.8	7.2	23.9	31.3	12.1	9.5	13.3	13.9	7.8	13.4
Cycle Q Clear(g_c), s	15.4	42.8	10.8	7.2	23.9	31.3	12.1	9.5	13.3	13.9	7.8	13.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	1609	718	267	1366	609	408	207	176	441	225	190
V/C Ratio(X)	0.90	0.87	0.31	0.79	0.64	0.77	0.87	0.74	1.35	0.92	0.57	0.93
Avail Cap(c_a), veh/h	291	1609	718	363	1366	609	441	207	176	441	225	190
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	29.7	20.9	54.4	30.1	32.4	52.0	51.7	53.3	51.7	49.9	52.3
Incr Delay (d2), s/veh	25.1	6.8	1.1	5.5	2.3	9.3	15.0	11.5	189.8	23.9	2.3	46.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	18.3	4.2	3.2	10.0	13.4	6.1	5.2	14.5	7.5	3.8	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.5	36.5	22.0	59.9	32.3	41.7	67.0	63.2	243.2	75.6	52.2	98.6
LnGrp LOS	E	D	C	E	C	D	E	E	F	E	D	F
Approach Vol, veh/h		1859			1551			745			712	
Approach Delay, s/veh		39.7			38.9			122.3			77.1	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.9	53.1	22.0	20.0	16.7	61.3	20.9	21.1
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 26	44.0	* 15	* 13	* 13	51.0	* 15	* 13
Max Q Clear Time (g_c+I1), s	17.4	33.3	15.9	15.3	9.2	44.8	14.1	15.4
Green Ext Time (p_c), s	0.0	3.3	0.0	0.0	0.1	3.4	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	57.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	1291	205	194	799	434	327	141	218	373	119	164
Future Volume (veh/h)	214	1291	205	194	799	434	327	141	218	373	119	164
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	233	1403	223	211	868	472	355	153	237	405	129	178
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	259	1609	718	267	1366	609	408	207	176	441	225	190
HCM 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
Prop Arrive On Green	0.15	0.45	0.45	0.08	0.38	0.38	0.12	0.11	0.11	0.13	0.12	0.12
Unsig. Movement Delay												
Ln Grp Delay, s/veh	75.5	36.5	22.0	59.9	32.3	41.7	67.0	63.2	243.2	75.6	52.2	98.6
Ln Grp LOS	E	D	C	E	C	D	E	E	F	E	D	F
Approach Vol, veh/h		1859			1551			745			712	
Approach Delay, s/veh		39.7			38.9			122.3			77.1	
Approach LOS		D			D			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	24.9	53.1	22.0	20.0	16.7	61.3	20.9	21.1
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green (Gmax), s	* 20	44.0	* 15	* 13	* 13	51.0	* 15	* 13
Max Allow Headway (MAH), s	2.2	3.4	2.3	3.5	2.2	3.6	2.2	3.5
Max Q Clear (g_c+I1), s	17.4	33.3	15.9	15.3	9.2	44.8	14.1	15.4
Green Ext Time (g_e), s	0.0	3.3	0.0	0.0	0.1	3.4	0.1	0.0
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	0.10	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	1781		3456		3456		3456	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3554		1870		3554		1870

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	1	0	2	0	2	0	2	0
Grp Vol (v), veh/h	233	0	405	0	211	0	355	0
Grp Sat Flow (s), veh/h/ln	1781	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	15.4	0.0	13.9	0.0	7.2	0.0	12.1	0.0
Cycle Q Clear Time (g_c), s	15.4	0.0	13.9	0.0	7.2	0.0	12.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	259	0	441	0	267	0	408	0
V/C Ratio (X)	0.90	0.00	0.92	0.00	0.79	0.00	0.87	0.00
Avail Cap (c_a), veh/h	291	0	441	0	363	0	441	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	50.4	0.0	51.7	0.0	54.4	0.0	52.0	0.0
Incr Delay (d2), s/veh	25.1	0.0	23.9	0.0	5.5	0.0	15.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	75.5	0.0	75.6	0.0	59.9	0.0	67.0	0.0
1st-Term Q (Q1), veh/ln	6.6	0.0	6.0	0.0	3.0	0.0	5.3	0.0
2nd-Term Q (Q2), veh/ln	1.8	0.0	1.5	0.0	0.2	0.0	0.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	8.4	0.0	7.5	0.0	3.2	0.0	6.1	0.0
%ile Storage Ratio (RQ%)	0.43	0.00	0.95	0.00	0.34	0.00	0.60	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	868	0	153	0	1403	0	129
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	23.9	0.0	9.5	0.0	42.8	0.0	7.8
Cycle Q Clear Time (g_c), s	0.0	23.9	0.0	9.5	0.0	42.8	0.0	7.8
Lane Grp Cap (c), veh/h	0	1366	0	207	0	1609	0	225
V/C Ratio (X)	0.00	0.64	0.00	0.74	0.00	0.87	0.00	0.57
Avail Cap (c_a), veh/h	0	1366	0	207	0	1609	0	225
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	30.1	0.0	51.7	0.0	29.7	0.0	49.9
Incr Delay (d2), s/veh	0.0	2.3	0.0	11.5	0.0	6.8	0.0	2.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	32.3	0.0	63.2	0.0	36.5	0.0	52.2
1st-Term Q (Q1), veh/ln	0.0	9.6	0.0	4.5	0.0	16.7	0.0	3.7
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.7	0.0	1.5	0.0	0.1

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	10.0	0.0	5.2	0.0	18.3	0.0	3.8
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.28	0.00	0.44	0.00	0.28
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	472	0	237	0	223	0	178
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	31.3	0.0	13.3	0.0	10.8	0.0	13.4
Cycle Q Clear Time (g_c), s	0.0	31.3	0.0	13.3	0.0	10.8	0.0	13.4
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	609	0	176	0	718	0	190
V/C Ratio (X)	0.00	0.77	0.00	1.35	0.00	0.31	0.00	0.93
Avail Cap (c_a), veh/h	0	609	0	176	0	718	0	190
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	32.4	0.0	53.3	0.0	20.9	0.0	52.3
Incr Delay (d2), s/veh	0.0	9.3	0.0	189.8	0.0	1.1	0.0	46.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	41.7	0.0	243.2	0.0	22.0	0.0	98.6
1st-Term Q (Q1), veh/ln	0.0	11.8	0.0	5.3	0.0	4.0	0.0	5.3
2nd-Term Q (Q2), veh/ln	0.0	1.6	0.0	9.3	0.0	0.2	0.0	2.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	13.4	0.0	14.5	0.0	4.2	0.0	7.7
%ile Storage Ratio (RQ%)	0.00	1.39	0.00	1.44	0.00	0.21	0.00	1.97
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	15.3	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	57.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

6: SR - 92 & 500 West

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	134	0	1134	156	177	187
Future Volume (veh/h)	134	0	1134	156	177	187
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	0	1233	170	192	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	322	0	2353	1049	258	229
Arrive On Green	0.04	0.00	0.66	0.66	0.14	0.14
Sat Flow, veh/h	1781	146	3647	1585	1781	1585
Grp Volume(v), veh/h	146	9.2	1233	170	192	203
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	3.2		21.5	4.9	12.4	15.1
Cycle Q Clear(g_c), s	3.2		21.5	4.9	12.4	15.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	322		2353	1049	258	229
V/C Ratio(X)	0.45		0.52	0.16	0.74	0.88
Avail Cap(c_a), veh/h	438		2353	1049	371	330
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8		10.5	7.7	49.2	50.3
Incr Delay (d2), s/veh	0.4		0.8	0.3	2.2	13.8
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0		7.3	1.5	5.7	6.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.2		11.3	8.0	51.4	64.2
LnGrp LOS	A		B	A	D	E
Approach Vol, veh/h			1403		395	
Approach Delay, s/veh			10.9		58.0	
Approach LOS			B		E	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	11.2	85.5				23.4
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	13.0	64.0				25.0
Max Q Clear Time (g_c+I1), s	5.2	23.5				17.1
Green Ext Time (p_c), s	0.1	4.5				0.3

Intersection Summary	
HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

6: SR - 92 & 500 West

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	134	0	1134	156	177	187
Future Volume (veh/h)	134	0	1134	156	177	187
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	0	1233	170	192	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	322	0	2353	1049	258	229
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.00	0.66	0.66	0.14	0.14
Unsig. Movement Delay						
Ln Grp Delay, s/veh	9.2	0.0	11.3	8.0	51.4	64.2
Ln Grp LOS	A	A	B	A	D	E
Approach Vol, veh/h		146	1403		395	
Approach Delay, s/veh		9.2	10.9		58.0	
Approach LOS		A	B		E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	11.2	85.5	23.4					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	64.0	25.0					
Max Allow Headway (MAH), s	2.2	3.2	2.4					
Max Q Clear (g_c+I1), s	5.2	23.5	17.1					
Green Ext Time (g_e), s	0.1	4.5	0.3					
Prob of Phs Call (p_c)	0.99	1.00	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	146	0	192	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	3.2	0.0	12.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.2	0.0	12.4	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	384	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	79.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	57.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	13.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	79.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	322	0	258	0	0	0	0	0
V/C Ratio (X)	0.45	0.00	0.74	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	438	0	371	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.8	0.0	49.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	2.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	9.2	0.0	51.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.33	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1233	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	21.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	21.5	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2353	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2353	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.3	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	170	203	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	4.9	15.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.9	15.1	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1049	229	0	0	0	0	0
V/C Ratio (X)	0.00	0.16	0.88	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1049	330	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.7	50.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	13.8	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.0	64.2	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.4	6.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.9	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.5	6.8	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.35	0.40	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		20.4						
HCM 6th LOS		C						

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	33	123	1	1	14	138	81	0	163	8
Future Vol, veh/h	6	2	33	123	1	1	14	138	81	0	163	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	2	36	134	1	1	15	150	88	0	177	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	288	450	93	314	410	119	186	0	0	238	0	0
Stage 1	182	182	-	224	224	-	-	-	-	-	-	-
Stage 2	106	268	-	90	186	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	642	503	946	615	530	910	1386	-	-	1326	-	-
Stage 1	802	748	-	758	717	-	-	-	-	-	-	-
Stage 2	888	686	-	907	745	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	635	497	946	585	524	910	1386	-	-	1326	-	-
Mov Cap-2 Maneuver	635	497	-	585	524	-	-	-	-	-	-	-
Stage 1	793	748	-	750	709	-	-	-	-	-	-	-
Stage 2	876	678	-	870	745	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	13	0.5	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1386	-	-	635	900	585	665	1326	-	-
HCM Lane V/C Ratio	0.011	-	-	0.01	0.042	0.229	0.003	-	-	-
HCM Control Delay (s)	7.6	-	-	10.7	9.2	13	10.4	0	-	-
HCM Lane LOS	A	-	-	B	A	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.9	0	0	-	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	94	52	69	0	1	102
Future Vol, veh/h	94	52	69	0	1	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	102	57	75	0	1	111

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	75	0	-	0	308	38
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	233	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1522	-	-	-	660	1026
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	784	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1522	-	-	-	616	1026
Mov Cap-2 Maneuver	-	-	-	-	616	-
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	784	-

Approach	EB	WB	SB
HCM Control Delay, s	4.9	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1522	-	-	-	1019
HCM Lane V/C Ratio	0.067	-	-	-	0.11
HCM Control Delay (s)	7.5	-	-	-	9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1	9	56	2	1	6	43	45	0	37	1
Future Vol, veh/h	8	1	9	56	2	1	6	43	45	0	37	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	1	10	61	2	1	7	47	49	0	40	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	128	151	41	132	127	72	41	0	0	96	0	0
Stage 1	41	41	-	86	86	-	-	-	-	-	-	-
Stage 2	87	110	-	46	41	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	845	741	1030	840	764	990	1568	-	-	1498	-	-
Stage 1	974	861	-	922	824	-	-	-	-	-	-	-
Stage 2	921	804	-	968	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	839	737	1030	828	760	990	1568	-	-	1498	-	-
Mov Cap-2 Maneuver	839	737	-	828	760	-	-	-	-	-	-	-
Stage 1	969	861	-	917	820	-	-	-	-	-	-	-
Stage 2	913	800	-	958	861	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	9.7	0.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1568	-	-	917	828	1498	-	-
HCM Lane V/C Ratio	0.004	-	-	0.021	0.077	-	-	-
HCM Control Delay (s)	7.3	0	-	9	9.7	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	77	35	0	7	18	215	21	2	375	1
Future Vol, veh/h	4	0	77	35	0	7	18	215	21	2	375	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	84	38	0	8	20	234	23	2	408	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	703	710	409	741	699	246	409	0	0	257	0	0
Stage 1	413	413	-	286	286	-	-	-	-	-	-	-
Stage 2	290	297	-	455	413	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	352	359	642	332	364	793	1150	-	-	1308	-	-
Stage 1	616	594	-	721	675	-	-	-	-	-	-	-
Stage 2	718	668	-	585	594	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	343	351	642	284	356	793	1150	-	-	1308	-	-
Mov Cap-2 Maneuver	343	351	-	284	356	-	-	-	-	-	-	-
Stage 1	604	593	-	707	662	-	-	-	-	-	-	-
Stage 2	697	655	-	508	593	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	18.2	0.6	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1150	-	-	616	318	1308	-	-
HCM Lane V/C Ratio	0.017	-	-	0.143	0.144	0.002	-	-
HCM Control Delay (s)	8.2	0	-	11.8	18.2	7.8	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.5	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	115	141	0	82	37	170	12	136	339	3
Future Volume (veh/h)	6	0	115	141	0	82	37	170	12	136	339	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	0	125	153	0	89	40	185	13	148	368	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	510	0	390	477	0	390	429	592	42	559	635	5
Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1308	0	1585	1266	0	1585	1011	1727	121	1185	1853	15
Grp Volume(v), veh/h	7	0	125	153	0	89	40	0	198	148	0	371
Grp Sat Flow(s),veh/h/ln	1308	0	1585	1266	0	1585	1011	0	1849	1185	0	1868
Q Serve(g_s), s	0.1	0.0	1.9	3.3	0.0	1.3	1.0	0.0	2.3	3.1	0.0	4.8
Cycle Q Clear(g_c), s	1.4	0.0	1.9	5.2	0.0	1.3	5.7	0.0	2.3	5.4	0.0	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.01
Lane Grp Cap(c), veh/h	510	0	390	477	0	390	429	0	633	559	0	640
V/C Ratio(X)	0.01	0.00	0.32	0.32	0.00	0.23	0.09	0.00	0.31	0.26	0.00	0.58
Avail Cap(c_a), veh/h	1219	0	1249	1163	0	1249	948	0	1584	1168	0	1600
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.4	0.0	9.0	11.1	0.0	8.8	10.2	0.0	7.1	9.0	0.0	7.9
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	0.7	0.0	0.3	0.2	0.0	0.6	0.5	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.4	0.0	9.2	11.3	0.0	8.9	10.3	0.0	7.2	9.1	0.0	8.2
LnGrp LOS	A	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		132			242			238			519	
Approach Delay, s/veh		9.2			10.4			7.7			8.4	
Approach LOS		A			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	16.0	13.2	16.0	13.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	25.0	23.0	25.0	23.0
Max Q Clear Time (g_c+I1), s	7.7	3.9	7.4	7.2
Green Ext Time (p_c), s	0.6	0.3	1.2	0.4

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	115	141	0	82	37	170	12	136	339	3
Future Volume (veh/h)	6	0	115	141	0	82	37	170	12	136	339	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	0	125	153	0	89	40	185	13	148	368	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	510	0	390	477	0	390	429	592	42	559	635	5
HCM 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
Prop Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.34	0.34	0.34	0.34	0.34	0.34
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.4	0.0	9.2	11.3	0.0	8.9	10.3	0.0	7.2	9.1	0.0	8.2
Ln Grp LOS	A	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		132			242			238			519	
Approach Delay, s/veh		9.2			10.4			7.7			8.4	
Approach LOS		A			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		16.0		13.2		16.0		13.2
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		25.0		23.0		25.0		23.0
Max Allow Headway (MAH), s		3.7		4.0		3.5		3.1
Max Q Clear (g_c+I1), s		7.7		3.9		7.4		7.2
Green Ext Time (g_e), s		0.6		0.3		1.2		0.4
Prob of Phs Call (p_c)		1.00		0.95		1.00		0.95
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1011		1308		1185		1266
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1727		0		1853		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		121		1585		15		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	40	0	7	0	148	0	153
Grp Sat Flow (s), veh/h/ln	0	1011	0	1308	0	1185	0	1266
Q Serve Time (g_s), s	0.0	1.0	0.0	0.1	0.0	3.1	0.0	3.3
Cycle Q Clear Time (g_c), s	0.0	5.7	0.0	1.4	0.0	5.4	0.0	5.2
Perm LT Sat Flow (s_l), veh/h/ln	0	1011	0	1308	0	1185	0	1266
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	10.0	0.0	7.2	0.0	10.0	0.0	7.2
Perm LT Serve Time (g_u), s	0.0	5.2	0.0	5.9	0.0	7.7	0.0	5.3
Perm LT Q Serve Time (g_ps), s	0.0	1.0	0.0	0.1	0.0	3.1	0.0	3.3
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	429	0	510	0	559	0	477
V/C Ratio (X)	0.00	0.09	0.00	0.01	0.00	0.26	0.00	0.32
Avail Cap (c_a), veh/h	0	948	0	1219	0	1168	0	1163
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	9.4	0.0	9.0	0.0	11.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.3	0.0	9.4	0.0	9.1	0.0	11.3
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.01	0.00	0.14	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	198	0	125	0	371	0	89
Grp Sat Flow (s), veh/h/ln	0	1849	0	1585	0	1868	0	1585
Q Serve Time (g_s), s	0.0	2.3	0.0	1.9	0.0	4.8	0.0	1.3
Cycle Q Clear Time (g_c), s	0.0	2.3	0.0	1.9	0.0	4.8	0.0	1.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.07	0.00	1.00	0.00	0.01	0.00	1.00
Lane Grp Cap (c), veh/h	0	633	0	390	0	640	0	390
V/C Ratio (X)	0.00	0.31	0.00	0.32	0.00	0.58	0.00	0.23
Avail Cap (c_a), veh/h	0	1584	0	1249	0	1600	0	1249
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.1	0.0	9.0	0.0	7.9	0.0	8.8
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.2	0.0	0.3	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.2	0.0	9.2	0.0	8.2	0.0	8.9
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.4	0.0	1.1	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	0.5	0.0	1.2	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.03	0.00	0.02	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	1123	51	169	772	78	62	63	68	139	91	231
Future Volume (veh/h)	143	1123	51	169	772	78	62	63	68	139	91	231
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	155	1221	55	184	839	85	67	68	74	151	99	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	1619	502	519	1731	772	165	134	114	184	439	
Arrive On Green	0.06	0.32	0.32	0.23	0.49	0.49	0.07	0.07	0.07	0.10	0.23	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1296	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	155	1221	55	184	839	85	67	68	74	151	99	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1296	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.4	21.5	2.5	1.6	15.9	2.9	5.1	3.5	2.7	8.3	4.3	0.0
Cycle Q Clear(g_c), s	4.4	21.5	2.5	1.6	15.9	2.9	5.1	3.5	2.7	8.3	4.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	222	1619	502	519	1731	772	165	134	114	184	439	
V/C Ratio(X)	0.70	0.75	0.11	0.35	0.48	0.11	0.41	0.51	0.65	0.82	0.23	
Avail Cap(c_a), veh/h	467	1619	502	519	1731	772	220	213	181	285	625	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.8	30.7	24.2	28.8	17.2	13.9	45.4	44.7	16.1	43.9	30.9	0.0
Incr Delay (d2), s/veh	1.5	3.3	0.4	0.2	1.0	0.3	0.6	1.1	2.3	10.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	8.6	0.9	3.3	6.0	1.1	1.6	1.7	1.8	4.2	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.3	34.0	24.6	29.0	18.2	14.2	46.0	45.8	18.4	54.4	31.0	0.0
LnGrp LOS	D	C	C	C	B	B	D	D	B	D	C	
Approach Vol, veh/h		1431			1108			209			250	A
Approach Delay, s/veh		35.1			19.7			36.2			45.1	
Approach LOS		D			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	12.9	56.0	16.3	14.8	29.9	39.0		31.1
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 14	* 32	16.0	11.4	* 14	* 32		33.4
Max Q Clear Time (g_c+I1), s	6.4	17.9	10.3	7.1	3.6	23.5		6.3
Green Ext Time (p_c), s	0.1	2.8	0.2	0.1	0.0	3.2		0.2

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	1123	51	169	772	78	62	63	68	139	91	231
Future Volume (veh/h)	143	1123	51	169	772	78	62	63	68	139	91	231
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	155	1221	55	184	839	85	67	68	74	151	99	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	222	1619	502	519	1731	772	165	134	114	184	439	
HCM 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
Prop Arrive On Green	0.06	0.32	0.32	0.23	0.49	0.49	0.07	0.07	0.07	0.10	0.23	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	47.3	34.0	24.6	29.0	18.2	14.2	46.0	45.8	18.4	54.4	31.0	0.0
Ln Grp LOS	D	C	C	C	B	B	D	D	B	D	C	
Approach Vol, veh/h		1431			1108			209			250	
Approach Delay, s/veh		35.1			19.7			36.2			45.1	
Approach LOS		D			B			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	6	5		8
Case No	2.0	3.0	2.0	5.3	3.0	1.3		3.0
Phs Duration (G+Y+Rc), s	12.9	56.0	16.3	14.8	39.0	29.9		31.1
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 14	* 32	16.0	11.4	* 32	* 14		33.4
Max Allow Headway (MAH), s	2.5	3.5	3.8	2.6	3.6	1.3		3.4
Max Q Clear (g_c+I1), s	6.4	17.9	10.3	7.1	23.5	3.6		6.3
Green Ext Time (g_e), s	0.1	2.8	0.2	0.1	3.2	0.0		0.2
Prob of Phs Call (p_c)	0.99	1.00	0.98	1.00	1.00	0.99		1.00
Prob of Max Out (p_x)	0.00	0.00	0.19	0.12	0.00	0.01		0.00

Left-Turn Movement Data								
Assigned Mvmt	1		3	7		5		
Mvmt Sat Flow, veh/h	3456		1781	1296		1781		

Through Movement Data								
Assigned Mvmt		2		4	6			8
Mvmt Sat Flow, veh/h		3554		1870	5106			1870

Right-Turn Movement Data								
Assigned Mvmt		12		14	16			18
Mvmt Sat Flow, veh/h		1585		1585	1585			1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L (Prot)	L		L (Pr/Pm)		

Lanes in Grp	2	0	1	1	0	1	0	0
Grp Vol (v), veh/h	155	0	151	67	0	184	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1296	0	1781	0	0
Q Serve Time (g_s), s	4.4	0.0	8.3	5.1	0.0	1.6	0.0	0.0
Cycle Q Clear Time (g_c), s	4.4	0.0	8.3	5.1	0.0	1.6	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1296	0	434	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	7.2	0.0	31.7	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	7.2	0.0	10.2	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	5.1	0.0	10.2	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	222	0	184	165	0	519	0	0
V/C Ratio (X)	0.70	0.00	0.82	0.41	0.00	0.35	0.00	0.00
Avail Cap (c_a), veh/h	467	0	285	220	0	519	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	45.8	0.0	43.9	45.4	0.0	28.8	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.0	10.5	0.6	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	47.3	0.0	54.4	46.0	0.0	29.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.8	0.0	3.6	1.6	0.0	3.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.8	0.0	4.2	1.6	0.0	3.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.11	0.00	0.46	0.26	0.00	0.31	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	839	0	68	1221	0	0	99
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	15.9	0.0	3.5	21.5	0.0	0.0	4.3
Cycle Q Clear Time (g_c), s	0.0	15.9	0.0	3.5	21.5	0.0	0.0	4.3
Lane Grp Cap (c), veh/h	0	1731	0	134	1619	0	0	439
V/C Ratio (X)	0.00	0.48	0.00	0.51	0.75	0.00	0.00	0.23
Avail Cap (c_a), veh/h	0	1731	0	213	1619	0	0	625
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.2	0.0	44.7	30.7	0.0	0.0	30.9
Incr Delay (d2), s/veh	0.0	1.0	0.0	1.1	3.3	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.2	0.0	45.8	34.0	0.0	0.0	31.0
1st-Term Q (Q1), veh/ln	0.0	5.8	0.0	1.6	8.1	0.0	0.0	1.9
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.5	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.0	0.0	1.7	8.6	0.0	0.0	1.9
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.07	0.18	0.00	0.00	0.22
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	85	0	74	55	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	2.9	0.0	2.7	2.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	2.9	0.0	2.7	2.5	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	772	0	114	502	0	0	372
V/C Ratio (X)	0.00	0.11	0.00	0.65	0.11	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	772	0	181	502	0	0	529
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.9	0.0	16.1	24.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	2.3	0.4	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.2	0.0	18.4	24.6	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.0	0.0	1.7	0.9	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.1	0.0	1.8	0.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.29	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1110	315	393	662	10	430	57	159	28	135	108
Future Volume (veh/h)	63	1110	315	393	662	10	430	57	159	28	135	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1207	342	427	720	11	467	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	1419	441	454	1679	749	511	635	283	98	217	
Arrive On Green	0.04	0.28	0.28	0.26	0.47	0.47	0.15	0.18	0.18	0.03	0.06	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	68	1207	342	427	720	11	467	62	173	30	147	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.9	22.4	19.9	23.5	13.4	0.4	13.3	1.5	10.1	0.9	4.1	0.0
Cycle Q Clear(g_c), s	1.9	22.4	19.9	23.5	13.4	0.4	13.3	1.5	10.1	0.9	4.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	147	1419	441	454	1679	749	511	635	283	98	217	
V/C Ratio(X)	0.46	0.85	0.78	0.94	0.43	0.01	0.91	0.10	0.61	0.31	0.68	
Avail Cap(c_a), veh/h	425	1419	441	465	1679	749	511	635	283	470	281	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.8	34.1	33.2	36.5	17.4	14.0	42.0	34.3	37.9	47.6	46.0	0.0
Incr Delay (d2), s/veh	0.8	6.6	12.6	26.6	0.8	0.0	20.4	0.0	2.8	0.7	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	9.4	9.0	12.8	5.1	0.1	7.1	0.6	4.1	0.4	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	40.7	45.8	63.1	18.2	14.0	62.4	34.3	40.6	48.3	48.1	0.0
LnGrp LOS	D	D	D	E	B	B	E	C	D	D	D	
Approach Vol, veh/h		1617			1158			702			177	A
Approach Delay, s/veh		42.1			34.7			54.5			48.1	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	53.9	9.2	25.0	31.4	34.4	21.0	13.2
Change Period (Y+Rc), s	* 7.7	6.6	6.4	* 7.1	5.9	* 6.6	* 6.2	7.1
Max Green Setting (Gmax), s	* 12	37.4	13.6	* 9.9	26.1	* 26	* 15	7.9
Max Q Clear Time (g_c+I1), s	3.9	15.4	2.9	12.1	25.5	24.4	15.3	6.1
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	0.0	0.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1110	315	393	662	10	430	57	159	28	135	108
Future Volume (veh/h)	63	1110	315	393	662	10	430	57	159	28	135	108
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1207	342	427	720	11	467	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	147	1419	441	454	1679	749	511	635	283	98	217	
HCM 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
Prop Arrive On Green	0.04	0.28	0.28	0.26	0.47	0.47	0.15	0.18	0.18	0.03	0.06	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	47.6	40.7	45.8	63.1	18.2	14.0	62.4	34.3	40.6	48.3	48.1	0.0
Ln Grp LOS	D	D	D	E	B	B	E	C	D	D	D	
Approach Vol, veh/h		1617			1158			702			177	
Approach Delay, s/veh		42.1			34.7			54.5			48.1	
Approach LOS		D			C			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	11.9	53.9	9.2	25.0	31.4	34.4	21.0	13.2
Change Period (Y+Rc), s	* 7.7	6.6	6.4	* 7.1	5.9	* 6.6	* 6.2	7.1
Max Green (Gmax), s	* 12	37.4	13.6	* 9.9	26.1	* 26	* 15	7.9
Max Allow Headway (MAH), s	1.3	3.6	1.6	2.6	1.3	3.4	1.4	3.1
Max Q Clear (g_c+I1), s	3.9	15.4	2.9	12.1	25.5	24.4	15.3	6.1
Green Ext Time (g_e), s	0.0	2.5	0.0	0.0	0.0	0.7	0.0	0.1
Prob of Phs Call (p_c)	0.85	1.00	0.57	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	3456		3456		1781		3456	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3554		3554		5106		3554

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	2	0	2	0	1	0	2	0
Grp Vol (v), veh/h	68	0	30	0	427	0	467	0
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1781	0	1728	0
Q Serve Time (g_s), s	1.9	0.0	0.9	0.0	23.5	0.0	13.3	0.0
Cycle Q Clear Time (g_c), s	1.9	0.0	0.9	0.0	23.5	0.0	13.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	147	0	98	0	454	0	511	0
V/C Ratio (X)	0.46	0.00	0.31	0.00	0.94	0.00	0.91	0.00
Avail Cap (c_a), veh/h	425	0	470	0	465	0	511	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	46.8	0.0	47.6	0.0	36.5	0.0	42.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.7	0.0	26.6	0.0	20.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	47.6	0.0	48.3	0.0	63.1	0.0	62.4	0.0
1st-Term Q (Q1), veh/ln	0.8	0.0	0.4	0.0	9.5	0.0	5.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	3.4	0.0	1.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.8	0.0	0.4	0.0	12.8	0.0	7.1	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.04	0.00	1.45	0.00	0.69	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	3	0	2
Grp Vol (v), veh/h	0	720	0	62	0	1207	0	147
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1702	0	1777
Q Serve Time (g_s), s	0.0	13.4	0.0	1.5	0.0	22.4	0.0	4.1
Cycle Q Clear Time (g_c), s	0.0	13.4	0.0	1.5	0.0	22.4	0.0	4.1
Lane Grp Cap (c), veh/h	0	1679	0	635	0	1419	0	217
V/C Ratio (X)	0.00	0.43	0.00	0.10	0.00	0.85	0.00	0.68
Avail Cap (c_a), veh/h	0	1679	0	635	0	1419	0	281
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.4	0.0	34.3	0.0	34.1	0.0	46.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	0.0	0.0	6.6	0.0	2.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.2	0.0	34.3	0.0	40.7	0.0	48.1
1st-Term Q (Q1), veh/ln	0.0	4.9	0.0	0.6	0.0	8.6	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.9	0.0	0.1

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.1	0.0	0.6	0.0	9.4	0.0	1.8
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.03	0.00	0.51	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	11	0	173	0	342	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.4	0.0	10.1	0.0	19.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	10.1	0.0	19.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	749	0	283	0	441	0	97
V/C Ratio (X)	0.00	0.01	0.00	0.61	0.00	0.78	0.00	0.00
Avail Cap (c_a), veh/h	0	749	0	283	0	441	0	125
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	14.0	0.0	37.9	0.0	33.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.8	0.0	12.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.0	0.0	40.6	0.0	45.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	3.9	0.0	7.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	1.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	4.1	0.0	9.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.40	0.00	1.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	876	280	166	625	337	344	110	161	447	141	205
Future Volume (veh/h)	129	876	280	166	625	337	344	110	161	447	141	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	140	952	304	180	679	366	374	120	0	486	153	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	1299	580	247	1214	541	437	450		547	296	251
Arrive On Green	0.10	0.37	0.37	0.07	0.34	0.34	0.13	0.13	0.00	0.16	0.16	0.16
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	1870	1585
Grp Volume(v), veh/h	140	952	304	180	679	366	374	120	0	486	153	223
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1870	1585
Q Serve(g_s), s	7.7	23.2	15.1	5.1	15.6	19.8	10.6	3.1	0.0	13.8	7.5	13.8
Cycle Q Clear(g_c), s	7.7	23.2	15.1	5.1	15.6	19.8	10.6	3.1	0.0	13.8	7.5	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	1299	580	247	1214	541	437	450		547	296	251
V/C Ratio(X)	0.82	0.73	0.52	0.73	0.56	0.68	0.86	0.27		0.89	0.52	0.89
Avail Cap(c_a), veh/h	260	1299	580	435	1214	541	460	473		563	305	258
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	27.5	24.9	45.5	26.8	28.2	42.8	39.5	0.0	41.2	38.6	41.2
Incr Delay (d2), s/veh	6.8	3.7	3.4	1.5	1.9	6.6	13.3	0.1	0.0	15.1	0.5	27.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	9.7	6.1	2.1	6.4	8.3	5.3	1.3	0.0	6.9	3.5	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	31.2	28.3	47.0	28.7	34.8	56.1	39.6	0.0	56.3	39.1	68.7
LnGrp LOS	D	C	C	D	C	C	E	D		E	D	E
Approach Vol, veh/h		1396			1225			494	A		862	
Approach Delay, s/veh		32.5			33.2			52.1			56.4	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	41.2	22.5	19.4	14.5	43.6	19.3	22.5
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 15	28.0	* 16	* 13	* 13	30.0	* 13	* 16
Max Q Clear Time (g_c+I1), s	9.7	21.8	15.8	5.1	7.1	25.2	12.6	15.8
Green Ext Time (p_c), s	0.0	1.9	0.1	0.2	0.1	2.0	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	876	280	166	625	337	344	110	161	447	141	205
Future Volume (veh/h)	129	876	280	166	625	337	344	110	161	447	141	205
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	140	952	304	180	679	366	374	120	0	486	153	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	170	1299	580	247	1214	541	437	450		547	296	251
HCM 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
Prop Arrive On Green	0.10	0.37	0.37	0.07	0.34	0.34	0.13	0.13	0.00	0.16	0.16	0.16
Unsig. Movement Delay												
Ln Grp Delay, s/veh	51.2	31.2	28.3	47.0	28.7	34.8	56.1	39.6	0.0	56.3	39.1	68.7
Ln Grp LOS	D	C	C	D	C	C	E	D		E	D	E
Approach Vol, veh/h		1396			1225			494			862	
Approach Delay, s/veh		32.5			33.2			52.1			56.4	
Approach LOS		C			C			D			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	17.0	41.2	22.5	19.4	14.5	43.6	19.3	22.5
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green (Gmax), s	* 15	28.0	* 16	* 13	* 13	30.0	* 13	* 16
Max Allow Headway (MAH), s	2.2	3.4	2.3	4.3	2.2	3.5	2.2	3.4
Max Q Clear (g_c+I1), s	9.7	21.8	15.8	5.1	7.1	25.2	12.6	15.8
Green Ext Time (g_e), s	0.0	1.9	0.1	0.2	0.1	2.0	0.0	0.1
Prob of Phs Call (p_c)	0.98	1.00	1.00	1.00	0.99	1.00	1.00	1.00
Prob of Max Out (p_x)	0.01	0.00	1.00	0.03	0.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	1781		3456		3456		3456	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3554		3554		3554		1870

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	1	0	2	0	2	0	2	0
Grp Vol (v), veh/h	140	0	486	0	180	0	374	0
Grp Sat Flow (s), veh/h/ln	1781	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	7.7	0.0	13.8	0.0	5.1	0.0	10.6	0.0
Cycle Q Clear Time (g_c), s	7.7	0.0	13.8	0.0	5.1	0.0	10.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	170	0	547	0	247	0	437	0
V/C Ratio (X)	0.82	0.00	0.89	0.00	0.73	0.00	0.86	0.00
Avail Cap (c_a), veh/h	260	0	563	0	435	0	460	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	44.4	0.0	41.2	0.0	45.5	0.0	42.8	0.0
Incr Delay (d2), s/veh	6.8	0.0	15.1	0.0	1.5	0.0	13.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	51.2	0.0	56.3	0.0	47.0	0.0	56.1	0.0
1st-Term Q (Q1), veh/ln	3.2	0.0	5.8	0.0	2.1	0.0	4.5	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	1.1	0.0	0.1	0.0	0.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.6	0.0	6.9	0.0	2.1	0.0	5.3	0.0
%ile Storage Ratio (RQ%)	0.18	0.00	0.88	0.00	0.22	0.00	0.52	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	1
Grp Vol (v), veh/h	0	679	0	120	0	952	0	153
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1870
Q Serve Time (g_s), s	0.0	15.6	0.0	3.1	0.0	23.2	0.0	7.5
Cycle Q Clear Time (g_c), s	0.0	15.6	0.0	3.1	0.0	23.2	0.0	7.5
Lane Grp Cap (c), veh/h	0	1214	0	450	0	1299	0	296
V/C Ratio (X)	0.00	0.56	0.00	0.27	0.00	0.73	0.00	0.52
Avail Cap (c_a), veh/h	0	1214	0	473	0	1299	0	305
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	26.8	0.0	39.5	0.0	27.5	0.0	38.6
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.1	0.0	3.7	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.7	0.0	39.6	0.0	31.2	0.0	39.1
1st-Term Q (Q1), veh/ln	0.0	6.1	0.0	1.3	0.0	9.0	0.0	3.4
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.7	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.4	0.0	1.3	0.0	9.7	0.0	3.5
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.07	0.00	0.23	0.00	0.27
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	366	0	0	0	304	0	223
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	19.8	0.0	0.0	0.0	15.1	0.0	13.8
Cycle Q Clear Time (g_c), s	0.0	19.8	0.0	0.0	0.0	15.1	0.0	13.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	541	0	201	0	580	0	251
V/C Ratio (X)	0.00	0.68	0.00	0.00	0.00	0.52	0.00	0.89
Avail Cap (c_a), veh/h	0	541	0	211	0	580	0	258
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	28.2	0.0	0.0	0.0	24.9	0.0	41.2
Incr Delay (d2), s/veh	0.0	6.6	0.0	0.0	0.0	3.4	0.0	27.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	34.8	0.0	0.0	0.0	28.3	0.0	68.7
1st-Term Q (Q1), veh/ln	0.0	7.3	0.0	0.0	0.0	5.5	0.0	5.3
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	0.0	0.0	0.5	0.0	1.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	8.3	0.0	0.0	0.0	6.1	0.0	7.2
%ile Storage Ratio (RQ%)	0.00	0.86	0.00	0.00	0.00	0.30	0.00	1.84
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	991	183	222	160
Future Volume (veh/h)	166	0	991	183	222	160
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1077	199	241	174
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	364	0	2155	961	277	246
Arrive On Green	0.06	0.00	0.61	0.61	0.16	0.16
Sat Flow, veh/h	1781	180	3647	1585	1781	1585
Grp Volume(v), veh/h	180	9.1	1077	199	241	174
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	3.8		17.1	5.7	13.2	10.4
Cycle Q Clear(g_c), s	3.8		17.1	5.7	13.2	10.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	364		2155	961	277	246
V/C Ratio(X)	0.49		0.50	0.21	0.87	0.71
Avail Cap(c_a), veh/h	492		2155	961	445	396
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8		11.1	8.9	41.2	40.1
Incr Delay (d2), s/veh	0.4		0.8	0.5	6.1	1.4
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1		5.8	1.8	6.2	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.1		11.9	9.3	47.4	41.4
LnGrp LOS	A		B	A	D	D
Approach Vol, veh/h			1276		415	
Approach Delay, s/veh			11.5		44.9	
Approach LOS			B		D	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	11.8	66.6				21.5
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	13.0	44.0				25.0
Max Q Clear Time (g_c+I1), s	5.8	19.1				15.2
Green Ext Time (p_c), s	0.1	3.6				0.3

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	991	183	222	160
Future Volume (veh/h)	166	0	991	183	222	160
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1077	199	241	174
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	364	0	2155	961	277	246
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.00	0.61	0.61	0.16	0.16
Unsig. Movement Delay						
Ln Grp Delay, s/veh	9.1	0.0	11.9	9.3	47.4	41.4
Ln Grp LOS	A	A	B	A	D	D
Approach Vol, veh/h		180	1276		415	
Approach Delay, s/veh		9.1	11.5		44.9	
Approach LOS		A	B		D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	11.8	66.6	21.5					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	44.0	25.0					
Max Allow Headway (MAH), s	2.2	3.2	2.4					
Max Q Clear (g_c+I1), s	5.8	19.1	15.2					
Green Ext Time (g_e), s	0.1	3.6	0.3					
Prob of Phs Call (p_c)	0.99	1.00	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	180	0	241	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	3.8	0.0	13.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.8	0.0	13.2	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	434	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	60.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	43.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	60.6	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	364	0	277	0	0	0	0	0
V/C Ratio (X)	0.49	0.00	0.87	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	492	0	445	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.8	0.0	41.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	6.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	9.1	0.0	47.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.1	0.0	5.7	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.1	0.0	6.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.11	0.00	0.36	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1077	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	17.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	17.1	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2155	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2155	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	199	174	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	5.7	10.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.7	10.4	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	961	246	0	0	0	0	0
V/C Ratio (X)	0.00	0.21	0.71	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	961	396	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.9	40.1	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	1.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.3	41.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.6	4.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.8	4.1	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.41	0.24	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		18.7						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	3	35	58	0	0	4	267	66	0	267	39
Future Vol, veh/h	59	3	35	58	0	0	4	267	66	0	267	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	3	38	63	0	0	4	290	72	0	290	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	464	681	166	481	666	181	332	0	0	362	0	0
Stage 1	311	311	-	334	334	-	-	-	-	-	-	-
Stage 2	153	370	-	147	332	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	481	371	849	468	379	831	1224	-	-	1193	-	-
Stage 1	674	657	-	653	642	-	-	-	-	-	-	-
Stage 2	834	619	-	841	643	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	480	370	849	443	378	831	1224	-	-	1193	-	-
Mov Cap-2 Maneuver	480	370	-	443	378	-	-	-	-	-	-	-
Stage 1	672	657	-	651	640	-	-	-	-	-	-	-
Stage 2	831	617	-	799	643	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	14.5	0.1	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1224	-	-	480	770	443	-	1193	-	-
HCM Lane V/C Ratio	0.004	-	-	0.134	0.054	0.142	-	-	-	-
HCM Control Delay (s)	8	-	-	13.7	9.9	14.5	0	0	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0.5	-	0	-	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	212	114	95	0	0	211
Future Vol, veh/h	212	114	95	0	0	211
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	230	124	103	0	0	229

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	103	0	-	0	625	52
Stage 1	-	-	-	-	103	-
Stage 2	-	-	-	-	522	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1487	-	-	-	417	1005
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	560	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1487	-	-	-	352	1005
Mov Cap-2 Maneuver	-	-	-	-	352	-
Stage 1	-	-	-	-	769	-
Stage 2	-	-	-	-	560	-

Approach	EB	WB	SB
HCM Control Delay, s	5.1	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1487	-	-	-	1005
HCM Lane V/C Ratio	0.155	-	-	-	0.228
HCM Control Delay (s)	7.9	-	-	-	9.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.9

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	20	56	1	0	12	100	100	0	135	2
Future Vol, veh/h	0	0	20	56	1	0	12	100	100	0	135	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	61	1	0	13	109	109	0	147	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	338	392	148	349	339	164	149	0	0	218	0	0
Stage 1	148	148	-	190	190	-	-	-	-	-	-	-
Stage 2	190	244	-	159	149	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	616	544	899	606	582	881	1432	-	-	1352	-	-
Stage 1	855	775	-	812	743	-	-	-	-	-	-	-
Stage 2	812	704	-	843	774	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	610	539	899	587	576	881	1432	-	-	1352	-	-
Mov Cap-2 Maneuver	610	539	-	587	576	-	-	-	-	-	-	-
Stage 1	846	775	-	804	736	-	-	-	-	-	-	-
Stage 2	803	697	-	823	774	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	11.9	0.4	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1432	-	-	899	587	1352	-	-
HCM Lane V/C Ratio	0.009	-	-	0.024	0.106	-	-	-
HCM Control Delay (s)	7.5	0	-	9.1	11.9	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	47	33	0	11	51	348	51	7	380	4
Future Vol, veh/h	3	0	47	33	0	11	51	348	51	7	380	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	51	36	0	12	55	378	55	8	413	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	953	974	415	973	949	406	417	0	0	433	0	0
Stage 1	431	431	-	516	516	-	-	-	-	-	-	-
Stage 2	522	543	-	457	433	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	239	252	637	231	260	645	1142	-	-	1127	-	-
Stage 1	603	583	-	542	534	-	-	-	-	-	-	-
Stage 2	538	520	-	583	582	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	222	234	637	201	242	645	1142	-	-	1127	-	-
Mov Cap-2 Maneuver	222	234	-	201	242	-	-	-	-	-	-	-
Stage 1	564	579	-	507	500	-	-	-	-	-	-	-
Stage 2	494	487	-	532	578	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	23.4	0.9	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1142	-	-	573	243	1127	-	-
HCM Lane V/C Ratio	0.049	-	-	0.095	0.197	0.007	-	-
HCM Control Delay (s)	8.3	0	-	11.9	23.4	8.2	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	0.7	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	92	145	0	92	90	363	167	119	339	7
Future Volume (veh/h)	5	0	92	145	0	92	90	363	167	119	339	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	100	158	0	100	98	395	182	129	368	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	404	0	354	404	0	354	524	574	264	365	863	19
Arrive On Green	0.22	0.00	0.22	0.22	0.00	0.22	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1295	0	1585	1295	0	1585	1007	1212	558	836	1824	40
Grp Volume(v), veh/h	5	0	100	158	0	100	98	0	577	129	0	376
Grp Sat Flow(s),veh/h/ln	1295	0	1585	1295	0	1585	1007	0	1770	836	0	1863
Q Serve(g_s), s	0.1	0.0	2.1	4.6	0.0	2.1	2.8	0.0	10.1	5.6	0.0	5.3
Cycle Q Clear(g_c), s	2.2	0.0	2.1	6.6	0.0	2.1	8.1	0.0	10.1	15.7	0.0	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		0.02
Lane Grp Cap(c), veh/h	404	0	354	404	0	354	524	0	838	365	0	882
V/C Ratio(X)	0.01	0.00	0.28	0.39	0.00	0.28	0.19	0.00	0.69	0.35	0.00	0.43
Avail Cap(c_a), veh/h	866	0	920	866	0	920	683	0	1117	497	0	1176
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.7	0.0	12.7	15.5	0.0	12.7	9.5	0.0	8.1	14.3	0.0	6.9
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.2	0.0	0.2	0.1	0.0	0.5	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	1.1	0.0	0.6	0.5	0.0	2.6	0.9	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.7	0.0	12.9	15.7	0.0	12.9	9.6	0.0	8.7	14.5	0.0	7.0
LnGrp LOS	B	A	B	B	A	B	A	A	A	B	A	A
Approach Vol, veh/h		105			258			675			505	
Approach Delay, s/veh		12.9			14.6			8.8			8.9	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	24.8	14.9	24.8	14.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	25.0	23.0	25.0	23.0
Max Q Clear Time (g_c+I1), s	12.1	4.2	17.7	8.6
Green Ext Time (p_c), s	1.9	0.3	1.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	92	145	0	92	90	363	167	119	339	7
Future Volume (veh/h)	5	0	92	145	0	92	90	363	167	119	339	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	100	158	0	100	98	395	182	129	368	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	404	0	354	404	0	354	524	574	264	365	863	19
HCM 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
Prop Arrive On Green	0.22	0.00	0.22	0.22	0.00	0.22	0.47	0.47	0.47	0.47	0.47	0.47
Unsig. Movement Delay												
Ln Grp Delay, s/veh	13.7	0.0	12.9	15.7	0.0	12.9	9.6	0.0	8.7	14.5	0.0	7.0
Ln Grp LOS	B	A	B	B	A	B	A	A	A	B	A	A
Approach Vol, veh/h		105			258			675			505	
Approach Delay, s/veh		12.9			14.6			8.8			8.9	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		24.8		14.9		24.8		14.9
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		25.0		23.0		25.0		23.0
Max Allow Headway (MAH), s		3.8		4.0		3.8		3.1
Max Q Clear (g_c+I1), s		12.1		4.2		17.7		8.6
Green Ext Time (g_e), s		1.9		0.3		1.0		0.4
Prob of Phs Call (p_c)		1.00		0.98		1.00		0.98
Prob of Max Out (p_x)		0.05		0.00		0.22		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1007		1295		836		1295
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1212		0		1824		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		558		1585		40		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	98	0	5	0	129	0	158
Grp Sat Flow (s), veh/h/ln	0	1007	0	1295	0	836	0	1295
Q Serve Time (g_s), s	0.0	2.8	0.0	0.1	0.0	5.6	0.0	4.6
Cycle Q Clear Time (g_c), s	0.0	8.1	0.0	2.2	0.0	15.7	0.0	6.6
Perm LT Sat Flow (s_l), veh/h/ln	0	1007	0	1295	0	836	0	1295
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.8	0.0	8.9	0.0	18.8	0.0	8.9
Perm LT Serve Time (g_u), s	0.0	13.5	0.0	6.8	0.0	8.7	0.0	6.8
Perm LT Q Serve Time (g_ps), s	0.0	2.8	0.0	0.1	0.0	5.6	0.0	4.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	524	0	404	0	365	0	404
V/C Ratio (X)	0.00	0.19	0.00	0.01	0.00	0.35	0.00	0.39
Avail Cap (c_a), veh/h	0	683	0	866	0	497	0	866
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.5	0.0	13.7	0.0	14.3	0.0	15.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.6	0.0	13.7	0.0	14.5	0.0	15.7
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.0	0.0	0.9	0.0	1.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	0.0	0.0	0.9	0.0	1.1
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.01	0.00	0.23	0.00	0.29
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	577	0	100	0	376	0	100
Grp Sat Flow (s), veh/h/ln	0	1770	0	1585	0	1863	0	1585
Q Serve Time (g_s), s	0.0	10.1	0.0	2.1	0.0	5.3	0.0	2.1
Cycle Q Clear Time (g_c), s	0.0	10.1	0.0	2.1	0.0	5.3	0.0	2.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.32	0.00	1.00	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	838	0	354	0	882	0	354
V/C Ratio (X)	0.00	0.69	0.00	0.28	0.00	0.43	0.00	0.28
Avail Cap (c_a), veh/h	0	1117	0	920	0	1176	0	920
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.1	0.0	12.7	0.0	6.9	0.0	12.7
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.2	0.0	0.1	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.7	0.0	12.9	0.0	7.0	0.0	12.9
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	0.6	0.0	1.4	0.0	0.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.6	0.0	0.6	0.0	1.4	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.03	0.00	0.02	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	422	1980	54	237	849	160	105	179	178	165	120	223
Future Volume (veh/h)	422	1980	54	237	849	160	105	179	178	165	120	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	459	2152	59	258	923	174	114	195	193	179	130	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	519	2242	696	529	1977	882	201	209	177	205	518	
Arrive On Green	0.15	0.44	0.44	0.26	0.56	0.56	0.11	0.11	0.11	0.12	0.28	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1260	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	459	2152	59	258	923	174	114	195	193	179	130	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1260	1870	1585	1781	1870	1585
Q Serve(g_s), s	15.6	49.0	2.6	9.9	18.7	6.6	10.6	12.4	10.0	11.9	6.5	0.0
Cycle Q Clear(g_c), s	15.6	49.0	2.6	9.9	18.7	6.6	10.6	12.4	10.0	11.9	6.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	519	2242	696	529	1977	882	201	209	177	205	518	
V/C Ratio(X)	0.89	0.96	0.08	0.49	0.47	0.20	0.57	0.93	1.09	0.87	0.25	
Avail Cap(c_a), veh/h	648	2242	696	529	1977	882	201	209	177	208	521	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.0	32.6	19.6	35.2	16.0	13.3	52.1	52.9	29.9	52.2	33.7	0.0
Incr Delay (d2), s/veh	10.3	11.6	0.2	0.3	0.8	0.5	2.4	43.4	93.9	30.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	20.9	1.0	6.0	7.1	0.1	3.5	8.3	8.5	7.0	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	44.3	19.8	35.4	16.8	13.8	54.4	96.3	123.7	82.7	33.8	0.0
LnGrp LOS	E	D	B	D	B	B	D	F	F	F	C	
Approach Vol, veh/h		2670			1355			502			309	A
Approach Delay, s/veh		46.5			19.9			97.3			62.1	
Approach LOS		D			B			F			E	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	24.5	74.1	19.8	21.0	38.6	60.0		40.8
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 23	* 43	14.0	13.4	* 13	* 53		33.4
Max Q Clear Time (g_c+I1), s	17.6	20.7	13.9	14.4	11.9	51.0		8.5
Green Ext Time (p_c), s	0.4	3.6	0.0	0.0	0.0	1.4		0.3

Intersection Summary	
HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	422	1980	54	237	849	160	105	179	178	165	120	223
Future Volume (veh/h)	422	1980	54	237	849	160	105	179	178	165	120	223
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	459	2152	59	258	923	174	114	195	193	179	130	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	519	2242	696	529	1977	882	201	209	177	205	518	
HCM 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
Prop Arrive On Green	0.15	0.44	0.44	0.26	0.56	0.56	0.11	0.11	0.11	0.12	0.28	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	60.3	44.3	19.8	35.4	16.8	13.8	54.4	96.3	123.7	82.7	33.8	0.0
Ln Grp LOS	E	D	B	D	B	B	D	F	F	F	C	
Approach Vol, veh/h		2670			1355			502			309	
Approach Delay, s/veh		46.5			19.9			97.3			62.1	
Approach LOS		D			B			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	6	5		8
Case No	2.0	3.0	2.0	5.3	3.0	1.3		3.0
Phs Duration (G+Y+Rc), s	24.5	74.1	19.8	21.0	60.0	38.6		40.8
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 23	* 43	14.0	13.4	* 53	* 13		33.4
Max Allow Headway (MAH), s	2.5	3.5	3.8	2.7	3.6	1.3		3.4
Max Q Clear (g_c+I1), s	17.6	20.7	13.9	14.4	51.0	11.9		8.5
Green Ext Time (g_e), s	0.4	3.6	0.0	0.0	1.4	0.0		0.3
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.08	0.00	1.00	1.00	0.00	1.00		0.00

Left-Turn Movement Data						
Assigned Mvmt	1		3	7		5
Mvmt Sat Flow, veh/h	3456		1781	1260		1781

Through Movement Data								
Assigned Mvmt			2		4	6		8
Mvmt Sat Flow, veh/h			3554		1870	5106		1870

Right-Turn Movement Data								
Assigned Mvmt			12		14	16		18
Mvmt Sat Flow, veh/h			1585		1585	1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L (Prot)	L		L (Pr/Pm)		

Lanes in Grp	2	0	1	1	0	1	0	0
Grp Vol (v), veh/h	459	0	179	114	0	258	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1260	0	1781	0	0
Q Serve Time (g_s), s	15.6	0.0	11.9	10.6	0.0	9.9	0.0	0.0
Cycle Q Clear Time (g_c), s	15.6	0.0	11.9	10.6	0.0	9.9	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1260	0	175	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	13.4	0.0	52.7	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	13.4	0.0	3.7	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	10.6	0.0	3.7	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	519	0	205	201	0	529	0	0
V/C Ratio (X)	0.89	0.00	0.87	0.57	0.00	0.49	0.00	0.00
Avail Cap (c_a), veh/h	648	0	208	201	0	529	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	50.0	0.0	52.2	52.1	0.0	35.2	0.0	0.0
Incr Delay (d2), s/veh	10.3	0.0	30.5	2.4	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	60.3	0.0	82.7	54.4	0.0	35.4	0.0	0.0
1st-Term Q (Q1), veh/ln	6.5	0.0	5.3	3.3	0.0	5.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.7	0.0	1.7	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	7.2	0.0	7.0	3.5	0.0	6.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.42	0.00	0.78	0.55	0.00	0.56	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	923	0	195	2152	0	0	130
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	18.7	0.0	12.4	49.0	0.0	0.0	6.5
Cycle Q Clear Time (g_c), s	0.0	18.7	0.0	12.4	49.0	0.0	0.0	6.5
Lane Grp Cap (c), veh/h	0	1977	0	209	2242	0	0	518
V/C Ratio (X)	0.00	0.47	0.00	0.93	0.96	0.00	0.00	0.25
Avail Cap (c_a), veh/h	0	1977	0	209	2242	0	0	521
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.0	0.0	52.9	32.6	0.0	0.0	33.7
Incr Delay (d2), s/veh	0.0	0.8	0.0	43.4	11.6	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.8	0.0	96.3	44.3	0.0	0.0	33.8
1st-Term Q (Q1), veh/ln	0.0	6.9	0.0	5.8	18.5	0.0	0.0	3.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	2.5	2.4	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.1	0.0	8.3	20.9	0.0	0.0	3.0
%ile Storage Ratio (RQ%)	0.00	0.14	0.00	0.33	0.43	0.00	0.00	0.33
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	174	0	193	59	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	6.6	0.0	10.0	2.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	6.6	0.0	10.0	2.6	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	882	0	177	696	0	0	439
V/C Ratio (X)	0.00	0.20	0.00	1.09	0.08	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	882	0	177	696	0	0	441
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.3	0.0	29.9	19.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	93.9	0.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.8	0.0	123.7	19.8	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.8	0.9	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	4.6	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	8.5	1.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	1.34	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1970	390	247	929	1	392	17	231	121	179	478
Future Volume (veh/h)	19	1970	390	247	929	1	392	17	231	121	179	478
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	2141	424	268	1010	1	426	18	251	132	195	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1529	3876	1203	284	1670	745	455	504	225	186	234	
Arrive On Green	0.44	0.76	0.76	0.16	0.47	0.47	0.13	0.14	0.14	0.05	0.07	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	21	2141	424	268	1010	1	426	18	251	132	195	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.4	20.9	10.6	17.9	25.3	0.1	14.7	0.5	17.0	4.5	6.5	0.0
Cycle Q Clear(g_c), s	0.4	20.9	10.6	17.9	25.3	0.1	14.7	0.5	17.0	4.5	6.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1529	3876	1203	284	1670	745	455	504	225	186	234	
V/C Ratio(X)	0.01	0.55	0.35	0.95	0.60	0.00	0.94	0.04	1.12	0.71	0.83	
Avail Cap(c_a), veh/h	1529	3876	1203	284	1670	745	455	504	225	392	234	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.8	6.0	4.8	49.9	23.5	30.1	51.6	44.4	51.5	55.8	55.4	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.8	38.5	1.6	0.0	26.6	0.0	94.5	1.9	20.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.5	3.2	10.7	10.2	0.0	8.0	0.2	12.6	2.0	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	6.6	5.6	88.4	25.2	30.1	78.2	44.4	146.0	57.7	76.3	0.0
LnGrp LOS	B	A	A	F	C	C	E	D	F	E	E	
Approach Vol, veh/h		2586			1279			695			327	A
Approach Delay, s/veh		6.5			38.4			101.8			68.8	
Approach LOS		A			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	62.0	63.0	12.9	24.1	25.0	100.0	22.0	15.0
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 7.1	5.9	* 7.7	* 6.2	7.1
Max Green Setting (Gmax), s	12.3	* 56	13.6	* 11	19.1	* 52	* 16	7.9
Max Q Clear Time (g_c+I1), s	12.4	27.3	6.5	19.0	19.9	22.9	16.7	8.5
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.0	12.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1970	390	247	929	1	392	17	231	121	179	478
Future Volume (veh/h)	19	1970	390	247	929	1	392	17	231	121	179	478
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	2141	424	268	1010	1	426	18	251	132	195	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	1529	3876	1203	284	1670	745	455	504	225	186	234	
HCM 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
Prop Arrive On Green	0.44	0.76	0.76	0.16	0.47	0.47	0.13	0.14	0.14	0.05	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.8	6.6	5.6	88.4	25.2	30.1	78.2	44.4	146.0	57.7	76.3	0.0
Ln Grp LOS	B	A	A	F	C	C	E	D	F	E	E	
Approach Vol, veh/h		2586			1279			695			327	
Approach Delay, s/veh		6.5			38.4			101.8			68.8	
Approach LOS		A			D			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	3	4	5	6	7	8
Case No	3.0	2.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	63.0	62.0	12.9	24.1	25.0	100.0	22.0	15.0
Change Period (Y+Rc), s	* 6.6	7.7	6.4	* 7.1	5.9	* 7.7	* 6.2	7.1
Max Green (Gmax), s	* 56	12.3	13.6	* 11	19.1	* 52	* 16	7.9
Max Allow Headway (MAH), s	3.6	1.3	1.6	2.3	1.3	3.5	1.4	3.1
Max Q Clear (g_c+I1), s	27.3	2.4	6.5	19.0	19.9	22.9	16.7	8.5
Green Ext Time (g_e), s	3.9	0.0	0.0	0.0	0.0	12.6	0.0	0.0
Prob of Phs Call (p_c)	1.00	0.50	0.99	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt		1	3		5		7	
Mvmt Sat Flow, veh/h		3456	3456		1781		3456	

Through Movement Data								
Assigned Mvmt	2			4		6		8
Mvmt Sat Flow, veh/h	3554			3554		5106		3554

Right-Turn Movement Data								
Assigned Mvmt	12			14		16		18
Mvmt Sat Flow, veh/h	1585			1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	0	1	3	0	5	0	7	0
Lane Assignment		L (Prot)	L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	0	2	2	0	1	0	2	0
Grp Vol (v), veh/h	0	21	132	0	268	0	426	0
Grp Sat Flow (s), veh/h/ln	0	1728	1728	0	1781	0	1728	0
Q Serve Time (g_s), s	0.0	0.4	4.5	0.0	17.9	0.0	14.7	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	4.5	0.0	17.9	0.0	14.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	1529	186	0	284	0	455	0
V/C Ratio (X)	0.00	0.01	0.71	0.00	0.95	0.00	0.94	0.00
Avail Cap (c_a), veh/h	0	1529	392	0	284	0	455	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	18.8	55.8	0.0	49.9	0.0	51.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.9	0.0	38.5	0.0	26.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.8	57.7	0.0	88.4	0.0	78.2	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	2.0	0.0	7.6	0.0	6.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	3.0	0.0	1.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.2	2.0	0.0	10.7	0.0	8.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.22	0.00	1.20	0.00	0.78	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	0	8
Lane Assignment	T			T		T		T
Lanes in Grp	2	0	0	2	0	3	0	2
Grp Vol (v), veh/h	1010	0	0	18	0	2141	0	195
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	0	1777
Q Serve Time (g_s), s	25.3	0.0	0.0	0.5	0.0	20.9	0.0	6.5
Cycle Q Clear Time (g_c), s	25.3	0.0	0.0	0.5	0.0	20.9	0.0	6.5
Lane Grp Cap (c), veh/h	1670	0	0	504	0	3876	0	234
V/C Ratio (X)	0.60	0.00	0.00	0.04	0.00	0.55	0.00	0.83
Avail Cap (c_a), veh/h	1670	0	0	504	0	3876	0	234
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	23.5	0.0	0.0	44.4	0.0	6.0	0.0	55.4
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.0	0.0	0.6	0.0	20.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	25.2	0.0	0.0	44.4	0.0	6.6	0.0	76.3
1st-Term Q (Q1), veh/ln	9.8	0.0	0.0	0.2	0.0	5.3	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.7

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	10.2	0.0	0.0	0.2	0.0	5.5	0.0	3.6
%ile Storage Ratio (RQ%)	0.25	0.00	0.00	0.01	0.00	0.28	0.00	0.12
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	0	18
Lane Assignment	R			R		R		R
Lanes in Grp	1	0	0	1	0	1	0	1
Grp Vol (v), veh/h	1	0	0	251	0	424	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.1	0.0	0.0	17.0	0.0	10.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.1	0.0	0.0	17.0	0.0	10.6	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	745	0	0	225	0	1203	0	104
V/C Ratio (X)	0.00	0.00	0.00	1.12	0.00	0.35	0.00	0.00
Avail Cap (c_a), veh/h	745	0	0	225	0	1203	0	104
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	30.1	0.0	0.0	51.5	0.0	4.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	94.5	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	30.1	0.0	0.0	146.0	0.0	5.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.7	0.0	3.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	5.9	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	12.6	0.0	3.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	1.24	0.00	0.37	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	1291	205	194	799	434	327	141	218	373	119	164
Future Volume (veh/h)	214	1291	205	194	799	434	327	141	218	373	119	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	233	1403	223	211	868	472	355	153	0	405	129	178
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	1642	732	267	1399	624	408	361		441	394	176
Arrive On Green	0.15	0.46	0.46	0.08	0.39	0.39	0.12	0.10	0.00	0.13	0.11	0.11
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	233	1403	223	211	868	472	355	153	0	405	129	178
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	15.4	42.1	10.6	7.2	23.5	30.9	12.1	4.9	0.0	13.9	4.0	13.3
Cycle Q Clear(g_c), s	15.4	42.1	10.6	7.2	23.5	30.9	12.1	4.9	0.0	13.9	4.0	13.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	1642	732	267	1399	624	408	361		441	394	176
V/C Ratio(X)	0.90	0.85	0.30	0.79	0.62	0.76	0.87	0.42		0.92	0.33	1.01
Avail Cap(c_a), veh/h	291	1642	732	363	1399	624	441	394		441	394	176
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	28.7	20.2	54.4	29.2	31.4	52.0	50.6	0.0	51.7	49.2	53.3
Incr Delay (d2), s/veh	25.1	5.9	1.1	5.5	2.1	8.3	15.0	0.3	0.0	23.9	0.2	71.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	17.7	4.1	3.2	9.8	13.1	6.1	2.2	0.0	7.5	1.8	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.5	34.6	21.3	59.9	31.3	39.7	67.0	50.9	0.0	75.6	49.4	124.7
LnGrp LOS	E	C	C	E	C	D	E	D		E	D	F
Approach Vol, veh/h		1859			1551			508	A		712	
Approach Delay, s/veh		38.1			37.7			62.1			83.1	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.9	54.2	22.0	18.9	16.7	62.4	20.9	20.0
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 26	44.0	* 15	* 13	* 13	51.0	* 15	* 13
Max Q Clear Time (g_c+I1), s	17.4	32.9	15.9	6.9	9.2	44.1	14.1	15.3
Green Ext Time (p_c), s	0.0	3.4	0.0	0.3	0.1	3.6	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	47.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	1291	205	194	799	434	327	141	218	373	119	164
Future Volume (veh/h)	214	1291	205	194	799	434	327	141	218	373	119	164
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	233	1403	223	211	868	472	355	153	0	405	129	178
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	259	1642	732	267	1399	624	408	361		441	394	176
HCM 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
Prop Arrive On Green	0.15	0.46	0.46	0.08	0.39	0.39	0.12	0.10	0.00	0.13	0.11	0.11
Unsig. Movement Delay												
Ln Grp Delay, s/veh	75.5	34.6	21.3	59.9	31.3	39.7	67.0	50.9	0.0	75.6	49.4	124.7
Ln Grp LOS	E	C	C	E	C	D	E	D		E	D	F
Approach Vol, veh/h		1859			1551			508			712	
Approach Delay, s/veh		38.1			37.7			62.1			83.1	
Approach LOS		D			D			E			F	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	24.9	54.2	22.0	18.9	16.7	62.4	20.9	20.0
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green (Gmax), s	* 20	44.0	* 15	* 13	* 13	51.0	* 15	* 13
Max Allow Headway (MAH), s	2.2	3.4	2.3	4.3	2.2	3.6	2.2	3.4
Max Q Clear (g_c+I1), s	17.4	32.9	15.9	6.9	9.2	44.1	14.1	15.3
Green Ext Time (g_e), s	0.0	3.4	0.0	0.3	0.1	3.6	0.1	0.0
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	1.00	0.00	1.00	0.17	0.10	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	1781		3456		3456		3456	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3554		3554		3554		3554

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	1	0	2	0	2	0	2	0
Grp Vol (v), veh/h	233	0	405	0	211	0	355	0
Grp Sat Flow (s), veh/h/ln	1781	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	15.4	0.0	13.9	0.0	7.2	0.0	12.1	0.0
Cycle Q Clear Time (g_c), s	15.4	0.0	13.9	0.0	7.2	0.0	12.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	259	0	441	0	267	0	408	0
V/C Ratio (X)	0.90	0.00	0.92	0.00	0.79	0.00	0.87	0.00
Avail Cap (c_a), veh/h	291	0	441	0	363	0	441	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	50.4	0.0	51.7	0.0	54.4	0.0	52.0	0.0
Incr Delay (d2), s/veh	25.1	0.0	23.9	0.0	5.5	0.0	15.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	75.5	0.0	75.6	0.0	59.9	0.0	67.0	0.0
1st-Term Q (Q1), veh/ln	6.6	0.0	6.0	0.0	3.0	0.0	5.3	0.0
2nd-Term Q (Q2), veh/ln	1.8	0.0	1.5	0.0	0.2	0.0	0.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	8.4	0.0	7.5	0.0	3.2	0.0	6.1	0.0
%ile Storage Ratio (RQ%)	0.43	0.00	0.95	0.00	0.34	0.00	0.60	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	868	0	153	0	1403	0	129
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	23.5	0.0	4.9	0.0	42.1	0.0	4.0
Cycle Q Clear Time (g_c), s	0.0	23.5	0.0	4.9	0.0	42.1	0.0	4.0
Lane Grp Cap (c), veh/h	0	1399	0	361	0	1642	0	394
V/C Ratio (X)	0.00	0.62	0.00	0.42	0.00	0.85	0.00	0.33
Avail Cap (c_a), veh/h	0	1399	0	394	0	1642	0	394
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	29.2	0.0	50.6	0.0	28.7	0.0	49.2
Incr Delay (d2), s/veh	0.0	2.1	0.0	0.3	0.0	5.9	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	31.3	0.0	50.9	0.0	34.6	0.0	49.4
1st-Term Q (Q1), veh/ln	0.0	9.4	0.0	2.2	0.0	16.4	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	1.3	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	9.8	0.0	2.2	0.0	17.7	0.0	1.8
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.12	0.00	0.43	0.00	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	472	0	0	0	223	0	178
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	30.9	0.0	0.0	0.0	10.6	0.0	13.3
Cycle Q Clear Time (g_c), s	0.0	30.9	0.0	0.0	0.0	10.6	0.0	13.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	624	0	161	0	732	0	176
V/C Ratio (X)	0.00	0.76	0.00	0.00	0.00	0.30	0.00	1.01
Avail Cap (c_a), veh/h	0	624	0	176	0	732	0	176
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	31.4	0.0	0.0	0.0	20.2	0.0	53.3
Incr Delay (d2), s/veh	0.0	8.3	0.0	0.0	0.0	1.1	0.0	71.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	39.7	0.0	0.0	0.0	21.3	0.0	124.7
1st-Term Q (Q1), veh/ln	0.0	11.6	0.0	0.0	0.0	3.9	0.0	5.3
2nd-Term Q (Q2), veh/ln	0.0	1.4	0.0	0.0	0.0	0.2	0.0	3.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	13.1	0.0	0.0	0.0	4.1	0.0	8.8
%ile Storage Ratio (RQ%)	0.00	1.36	0.00	0.00	0.00	0.20	0.00	2.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	47.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	134	0	1134	156	177	187
Future Volume (veh/h)	134	0	1134	156	177	187
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	0	1233	170	192	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	322	0	2353	1049	258	229
Arrive On Green	0.04	0.00	0.66	0.66	0.14	0.14
Sat Flow, veh/h	1781	146	3647	1585	1781	1585
Grp Volume(v), veh/h	146	9.2	1233	170	192	203
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	3.2		21.5	4.9	12.4	15.1
Cycle Q Clear(g_c), s	3.2		21.5	4.9	12.4	15.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	322		2353	1049	258	229
V/C Ratio(X)	0.45		0.52	0.16	0.74	0.88
Avail Cap(c_a), veh/h	438		2353	1049	371	330
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8		10.5	7.7	49.2	50.3
Incr Delay (d2), s/veh	0.4		0.8	0.3	2.2	13.8
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0		7.3	1.5	5.7	6.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.2		11.3	8.0	51.4	64.2
LnGrp LOS	A		B	A	D	E
Approach Vol, veh/h			1403		395	
Approach Delay, s/veh			10.9		58.0	
Approach LOS			B		E	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	11.2	85.5				23.4
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	13.0	64.0				25.0
Max Q Clear Time (g_c+I1), s	5.2	23.5				17.1
Green Ext Time (p_c), s	0.1	4.5				0.3

Intersection Summary	
HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	134	0	1134	156	177	187
Future Volume (veh/h)	134	0	1134	156	177	187
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	0	1233	170	192	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	322	0	2353	1049	258	229
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.00	0.66	0.66	0.14	0.14
Unsig. Movement Delay						
Ln Grp Delay, s/veh	9.2	0.0	11.3	8.0	51.4	64.2
Ln Grp LOS	A	A	B	A	D	E
Approach Vol, veh/h		146	1403		395	
Approach Delay, s/veh		9.2	10.9		58.0	
Approach LOS		A	B		E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	11.2	85.5	23.4					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	64.0	25.0					
Max Allow Headway (MAH), s	2.2	3.2	2.4					
Max Q Clear (g_c+I1), s	5.2	23.5	17.1					
Green Ext Time (g_e), s	0.1	4.5	0.3					
Prob of Phs Call (p_c)	0.99	1.00	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	146	0	192	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	3.2	0.0	12.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.2	0.0	12.4	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	384	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	79.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	57.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	13.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	79.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	322	0	258	0	0	0	0	0
V/C Ratio (X)	0.45	0.00	0.74	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	438	0	371	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.8	0.0	49.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	2.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	9.2	0.0	51.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.33	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1233	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	21.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	21.5	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2353	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2353	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.3	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	170	203	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	4.9	15.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.9	15.1	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1049	229	0	0	0	0	0
V/C Ratio (X)	0.00	0.16	0.88	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1049	330	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.7	50.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	13.8	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.0	64.2	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.4	6.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.9	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.5	6.8	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.35	0.40	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		20.4						
HCM 6th LOS		C						

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	33	123	1	1	14	138	81	0	163	8
Future Vol, veh/h	6	2	33	123	1	1	14	138	81	0	163	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	2	36	134	1	1	15	150	88	0	177	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	288	450	93	314	410	119	186	0	0	238	0	0
Stage 1	182	182	-	224	224	-	-	-	-	-	-	-
Stage 2	106	268	-	90	186	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	642	503	946	615	530	910	1386	-	-	1326	-	-
Stage 1	802	748	-	758	717	-	-	-	-	-	-	-
Stage 2	888	686	-	907	745	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	635	497	946	585	524	910	1386	-	-	1326	-	-
Mov Cap-2 Maneuver	635	497	-	585	524	-	-	-	-	-	-	-
Stage 1	793	748	-	750	709	-	-	-	-	-	-	-
Stage 2	876	678	-	870	745	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	13	0.5	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1386	-	-	635	900	585	665	1326	-	-
HCM Lane V/C Ratio	0.011	-	-	0.01	0.042	0.229	0.003	-	-	-
HCM Control Delay (s)	7.6	-	-	10.7	9.2	13	10.4	0	-	-
HCM Lane LOS	A	-	-	B	A	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.9	0	0	-	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	94	52	69	0	1	102
Future Vol, veh/h	94	52	69	0	1	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	102	57	75	0	1	111

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	75	0	-	0	308	38
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	233	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1522	-	-	-	660	1026
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	784	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1522	-	-	-	616	1026
Mov Cap-2 Maneuver	-	-	-	-	616	-
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	784	-

Approach	EB	WB	SB
HCM Control Delay, s	4.9	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1522	-	-	-	1019
HCM Lane V/C Ratio	0.067	-	-	-	0.11
HCM Control Delay (s)	7.5	-	-	-	9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1	9	56	2	1	6	43	45	0	37	1
Future Vol, veh/h	8	1	9	56	2	1	6	43	45	0	37	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	1	10	61	2	1	7	47	49	0	40	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	128	151	41	132	127	72	41	0	0	96	0	0
Stage 1	41	41	-	86	86	-	-	-	-	-	-	-
Stage 2	87	110	-	46	41	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	845	741	1030	840	764	990	1568	-	-	1498	-	-
Stage 1	974	861	-	922	824	-	-	-	-	-	-	-
Stage 2	921	804	-	968	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	839	737	1030	828	760	990	1568	-	-	1498	-	-
Mov Cap-2 Maneuver	839	737	-	828	760	-	-	-	-	-	-	-
Stage 1	969	861	-	917	820	-	-	-	-	-	-	-
Stage 2	913	800	-	958	861	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	9.7	0.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1568	-	-	917	828	1498	-	-
HCM Lane V/C Ratio	0.004	-	-	0.021	0.077	-	-	-
HCM Control Delay (s)	7.3	0	-	9	9.7	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

2050 BACKGROUND

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	32	0	6	3	337	49	2	295	0
Future Vol, veh/h	0	0	0	32	0	6	3	337	49	2	295	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	35	0	7	3	366	53	2	321	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	727	750	321	724	724	393	321	0	0	419	0	0
Stage 1	325	325	-	399	399	-	-	-	-	-	-	-
Stage 2	402	425	-	325	325	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	339	340	720	341	352	656	1239	-	-	1140	-	-
Stage 1	687	649	-	627	602	-	-	-	-	-	-	-
Stage 2	625	586	-	687	649	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	334	338	720	340	350	656	1239	-	-	1140	-	-
Mov Cap-2 Maneuver	334	338	-	340	350	-	-	-	-	-	-	-
Stage 1	685	648	-	625	600	-	-	-	-	-	-	-
Stage 2	617	584	-	686	648	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	16	0.1	0.1
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1239	-	-	-	368	1140	-	-
HCM Lane V/C Ratio	0.003	-	-	-	0.112	0.002	-	-
HCM Control Delay (s)	7.9	0	-	0	16	8.2	-	-
HCM Lane LOS	A	A	-	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	260	0	150	0	194	22	141	228	0
Future Volume (veh/h)	0	0	0	260	0	150	0	194	22	141	228	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	283	0	163	0	211	24	153	248	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	252	432	0	663	0	366	252	576	66	543	654	0
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.00	0.35	0.35	0.35	0.35	0.00
Sat Flow, veh/h	1223	1870	0	1781	0	1585	1132	1649	188	1145	1870	0
Grp Volume(v), veh/h	0	0	0	283	0	163	0	0	235	153	248	0
Grp Sat Flow(s),veh/h/ln	1223	1870	0	1781	0	1585	1132	0	1837	1145	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	4.2	0.0	2.5	0.0	0.0	2.7	3.3	2.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.2	0.0	2.5	0.0	0.0	2.7	6.0	2.8	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.10	1.00		0.00
Lane Grp Cap(c), veh/h	252	432	0	663	0	366	252	0	642	543	654	0
V/C Ratio(X)	0.00	0.00	0.00	0.43	0.00	0.45	0.00	0.00	0.37	0.28	0.38	0.00
Avail Cap(c_a), veh/h	952	1504	0	1684	0	1274	845	0	1605	1143	1634	0
HCM 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
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	10.1	0.0	9.4	0.0	0.0	6.9	9.2	7.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.0	0.1	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.1	0.0	0.6	0.0	0.0	0.6	0.6	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	10.2	0.0	9.7	0.0	0.0	7.1	9.3	7.1	0.0
LnGrp LOS	A	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			446			235			401	
Approach Delay, s/veh		0.0			10.0			7.1			7.9	
Approach LOS					B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	16.0	12.6	16.0	12.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	25.0	23.0	25.0	23.0
Max Q Clear Time (g_c+I1), s	4.7	0.0	8.0	6.2
Green Ext Time (p_c), s	0.6	0.0	0.9	0.7

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	260	0	150	0	194	22	141	228	0
Future Volume (veh/h)	0	0	0	260	0	150	0	194	22	141	228	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	283	0	163	0	211	24	153	248	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	252	432	0	663	0	366	252	576	66	543	654	0
HCM 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
Prop Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.00	0.35	0.35	0.35	0.35	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	10.2	0.0	9.7	0.0	0.0	7.1	9.3	7.1	0.0
Ln Grp LOS	A	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			446			235			401	
Approach Delay, s/veh		0.0			10.0			7.1			7.9	
Approach LOS					B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		16.0		12.6		16.0		12.6
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		25.0		23.0		25.0		23.0
Max Allow Headway (MAH), s		3.8		0.0		3.4		2.9
Max Q Clear (g_c+I1), s		4.7		0.0		8.0		6.2
Green Ext Time (g_e), s		0.6		0.0		0.9		0.7
Prob of Phs Call (p_c)		1.00		0.00		1.00		0.97
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1132		1223		1145		1781
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1649		1870		1870		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		188		0		0		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	153	0	283
Grp Sat Flow (s), veh/h/ln	0	1132	0	1223	0	1145	0	1781
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	4.2
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	6.0	0.0	4.2
Perm LT Sat Flow (s_l), veh/h/ln	0	1132	0	1223	0	1145	0	1781
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	10.0	0.0	6.6
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	7.3	0.0	6.6
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	4.2
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	252	0	252	0	543	0	663
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.43
Avail Cap (c_a), veh/h	0	845	0	952	0	1143	0	1684
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	9.2	0.0	10.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	9.3	0.0	10.2
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.6	0.0	1.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.05
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment				T		T		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	248	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1870	0	1870	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	432	0	654	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	1504	0	1634	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R						T+R
Lanes in Grp	0	1	0	0	0	0	0	1
Grp Vol (v), veh/h	0	235	0	0	0	0	0	163
Grp Sat Flow (s), veh/h/ln	0	1837	0	0	0	0	0	1585
Q Serve Time (g_s), s	0.0	2.7	0.0	0.0	0.0	0.0	0.0	2.5
Cycle Q Clear Time (g_c), s	0.0	2.7	0.0	0.0	0.0	0.0	0.0	2.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.10	0.00	0.00	0.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	642	0	0	0	0	0	366
V/C Ratio (X)	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.45
Avail Cap (c_a), veh/h	0	1605	0	0	0	0	0	1274
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	6.9	0.0	0.0	0.0	0.0	0.0	9.4
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.1	0.0	0.0	0.0	0.0	0.0	9.7
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.6
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		8.6						
HCM 6th LOS		A						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	854	4	192	591	60	32	89	102	87	92	148
Future Volume (veh/h)	173	854	4	192	591	60	32	89	102	87	92	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	928	4	209	642	65	35	97	111	95	100	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	252	1982	615	687	2084	930	192	273	231	182	273	
Arrive On Green	0.07	0.39	0.39	0.26	0.59	0.59	0.15	0.15	0.15	0.15	0.15	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1295	1870	1585	1174	1870	1585
Grp Volume(v), veh/h	188	928	4	209	642	65	35	97	111	95	100	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1295	1870	1585	1174	1870	1585
Q Serve(g_s), s	5.9	14.9	0.2	0.0	10.0	1.9	2.8	5.1	7.1	8.7	5.3	0.0
Cycle Q Clear(g_c), s	5.9	14.9	0.2	0.0	10.0	1.9	8.1	5.1	7.1	13.9	5.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	1982	615	687	2084	930	192	273	231	182	273	
V/C Ratio(X)	0.74	0.47	0.01	0.30	0.31	0.07	0.18	0.36	0.48	0.52	0.37	
Avail Cap(c_a), veh/h	613	1982	615	687	2084	930	278	398	337	260	398	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.0	25.2	20.6	19.7	11.5	9.8	46.0	42.3	43.1	48.6	42.4	0.0
Incr Delay (d2), s/veh	1.6	0.8	0.0	0.1	0.4	0.1	0.2	0.3	0.6	0.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.8	0.1	3.5	3.6	0.6	0.9	2.4	2.8	2.6	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.6	26.0	20.7	19.8	11.9	9.9	46.2	42.6	43.7	49.4	42.7	0.0
LnGrp LOS	D	C	C	B	B	A	D	D	D	D	D	
Approach Vol, veh/h		1120			916			243			195	A
Approach Delay, s/veh		30.2			13.5			43.6			46.0	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.5	71.8		23.6	36.4	50.0		23.6
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 26	* 46		23.4	* 23	* 43		23.4
Max Q Clear Time (g_c+I1), s	7.9	12.0		10.1	2.0	16.9		15.9
Green Ext Time (p_c), s	0.2	2.3		0.3	0.0	3.5		0.2

Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	854	4	192	591	60	32	89	102	87	92	148
Future Volume (veh/h)	173	854	4	192	591	60	32	89	102	87	92	148
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	928	4	209	642	65	35	97	111	95	100	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	252	1982	615	687	2084	930	192	273	231	182	273	
HCM 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
Prop Arrive On Green	0.07	0.39	0.39	0.26	0.59	0.59	0.15	0.15	0.15	0.15	0.15	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	51.6	26.0	20.7	19.8	11.9	9.9	46.2	42.6	43.7	49.4	42.7	0.0
Ln Grp LOS	D	C	C	B	B	A	D	D	D	D	D	
Approach Vol, veh/h		1120			916			243			195	
Approach Delay, s/veh		30.2			13.5			43.6			46.0	
Approach LOS		C			B			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	6	5		8
Case No	2.0	3.0		5.0	3.0	1.3		5.0
Phs Duration (G+Y+Rc), s	14.5	71.8		23.6	50.0	36.4		23.6
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 20	* 46		23.4	* 43	* 23		23.4
Max Allow Headway (MAH), s	2.5	3.5		2.7	3.6	1.3		3.0
Max Q Clear (g_c+I1), s	7.9	12.0		10.1	16.9	2.0		15.9
Green Ext Time (g_e), s	0.2	2.3		0.3	3.5	0.0		0.2
Prob of Phs Call (p_c)	1.00	1.00		1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.00	0.00		0.00	0.00	0.00		0.01

Left-Turn Movement Data				
Assigned Mvmt	1		7		5		3	
Mvmt Sat Flow, veh/h	3456		1295		1781		1174	

Through Movement Data								
Assigned Mvmt		2		4	6			8
Mvmt Sat Flow, veh/h		3554		1870	5106			1870

Right-Turn Movement Data								
Assigned Mvmt		12		14	16			18
Mvmt Sat Flow, veh/h		1585		1585	1585			1585

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	0	5	0	3
Lane Assignment	L (Prot)			L	L (Pr/Pm)			L

Lanes in Grp	2	0	0	1	0	1	0	1
Grp Vol (v), veh/h	188	0	0	35	0	209	0	95
Grp Sat Flow (s), veh/h/ln	1728	0	0	1295	0	1781	0	1174
Q Serve Time (g_s), s	5.9	0.0	0.0	2.8	0.0	0.0	0.0	8.7
Cycle Q Clear Time (g_c), s	5.9	0.0	0.0	8.1	0.0	0.0	0.0	13.9
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1295	0	601	0	1174
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	16.0	0.0	42.7	0.0	16.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	10.7	0.0	27.8	0.0	10.9
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	2.8	0.0	27.8	0.0	8.7
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	252	0	0	192	0	687	0	182
V/C Ratio (X)	0.74	0.00	0.00	0.18	0.00	0.30	0.00	0.52
Avail Cap (c_a), veh/h	613	0	0	278	0	687	0	260
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	50.0	0.0	0.0	46.0	0.0	19.7	0.0	48.6
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.2	0.0	0.1	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	51.6	0.0	0.0	46.2	0.0	19.8	0.0	49.4
1st-Term Q (Q1), veh/ln	2.4	0.0	0.0	0.9	0.0	3.5	0.0	2.5
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	2.5	0.0	0.0	0.9	0.0	3.5	0.0	2.6
%ile Storage Ratio (RQ%)	0.15	0.00	0.00	0.14	0.00	0.33	0.00	0.29
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	642	0	97	928	0	0	100
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	10.0	0.0	5.1	14.9	0.0	0.0	5.3
Cycle Q Clear Time (g_c), s	0.0	10.0	0.0	5.1	14.9	0.0	0.0	5.3
Lane Grp Cap (c), veh/h	0	2084	0	273	1982	0	0	273
V/C Ratio (X)	0.00	0.31	0.00	0.36	0.47	0.00	0.00	0.37
Avail Cap (c_a), veh/h	0	2084	0	398	1982	0	0	398
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	11.5	0.0	42.3	25.2	0.0	0.0	42.4
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.3	0.8	0.0	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.9	0.0	42.6	26.0	0.0	0.0	42.7
1st-Term Q (Q1), veh/ln	0.0	3.5	0.0	2.4	5.6	0.0	0.0	2.5
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.6	0.0	2.4	5.8	0.0	0.0	2.5
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.10	0.12	0.00	0.00	0.28
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	65	0	111	4	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	1.9	0.0	7.1	0.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.9	0.0	7.1	0.2	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	930	0	231	615	0	0	231
V/C Ratio (X)	0.00	0.07	0.00	0.48	0.01	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	930	0	337	615	0	0	337
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.8	0.0	43.1	20.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.6	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.9	0.0	43.7	20.7	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	2.8	0.1	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	2.8	0.1	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.45	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	765	254	136	508	319	149
Future Volume (veh/h)	765	254	136	508	319	149
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	832	276	148	552	347	162
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1583	706	831	2664	422	194
Arrive On Green	0.45	0.45	0.24	0.75	0.12	0.12
Sat Flow, veh/h	3647	1585	3456	3647	3456	1585
Grp Volume(v), veh/h	832	276	148	552	347	162
Grp Sat Flow(s),veh/h/ln	1777	1585	1728	1777	1728	1585
Q Serve(g_s), s	18.6	12.9	3.7	5.1	10.8	11.0
Cycle Q Clear(g_c), s	18.6	12.9	3.7	5.1	10.8	11.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1583	706	831	2664	422	194
V/C Ratio(X)	0.53	0.39	0.18	0.21	0.82	0.84
Avail Cap(c_a), veh/h	1583	706	831	2664	732	336
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.1	20.5	33.1	4.1	47.1	47.2
Incr Delay (d2), s/veh	1.3	1.6	0.0	0.2	1.5	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	4.7	1.5	1.3	4.8	9.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.3	22.1	33.2	4.3	48.6	50.8
LnGrp LOS	C	C	C	A	D	D
Approach Vol, veh/h	1108			700	509	
Approach Delay, s/veh	23.0			10.4	49.3	
Approach LOS	C			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		89.9		20.1	33.9	56.0
Change Period (Y+Rc), s		* 7.4		* 6.7	7.4	* 7
Max Green Setting (Gmax), s		* 73		* 23	16.6	* 49
Max Q Clear Time (g_c+I1), s		7.1		13.0	5.7	20.6
Green Ext Time (p_c), s		2.0		0.5	0.1	3.6

Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	765	254	136	508	319	149
Future Volume (veh/h)	765	254	136	508	319	149
Number	6	16	5	2	7	14
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	832	276	148	552	347	162
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence			Yes		Yes	
Cap, veh/h	1583	706	831	2664	422	194
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.45	0.45	0.24	0.75	0.12	0.12
Unsig. Movement Delay						
Ln Grp Delay, s/veh	23.3	22.1	33.2	4.3	48.6	50.8
Ln Grp LOS	C	C	C	A	D	D
Approach Vol, veh/h	1108			700	509	
Approach Delay, s/veh	23.0			10.4	49.3	
Approach LOS	C			B	D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	6	5		
Case No		4.0		9.0	7.0	2.0		
Phs Duration (G+Y+Rc), s		89.9		20.1	56.0	33.9		
Change Period (Y+Rc), s		* 7.4		* 6.7	* 7	7.4		
Max Green (Gmax), s		* 73		* 23	* 49	16.6		
Max Allow Headway (MAH), s		3.7		2.2	3.5	2.2		
Max Q Clear (g_c+I1), s		7.1		13.0	20.6	5.7		
Green Ext Time (g_e), s		2.0		0.5	3.6	0.1		
Prob of Phs Call (p_c)		1.00		1.00	1.00	0.99		
Prob of Max Out (p_x)		0.00		0.00	0.00	0.00		
Left-Turn Movement Data								
Assigned Mvmt				7	1	5		
Mvmt Sat Flow, veh/h				3456	0	3456		
Through Movement Data								
Assigned Mvmt		2		4	6			
Mvmt Sat Flow, veh/h		3647		0	3647			
Right-Turn Movement Data								
Assigned Mvmt		12		14	16			
Mvmt Sat Flow, veh/h		0		1585	1585			
Left Lane Group Data								
Assigned Mvmt	0	0	0	7	1	5	0	0
Lane Assignment				L		L (Prot)		

Lanes in Grp	0	0	0	2	0	2	0	0
Grp Vol (v), veh/h	0	0	0	347	0	148	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1728	0	1728	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	10.8	0.0	3.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	10.8	0.0	3.7	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1728	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	49.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	422	0	831	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.82	0.00	0.18	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	732	0	831	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	47.1	0.0	33.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	48.6	0.0	33.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	4.7	0.0	1.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	4.8	0.0	1.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.46	0.00	0.16	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	0
Lane Assignment		T			T			
Lanes in Grp	0	2	0	0	2	0	0	0
Grp Vol (v), veh/h	0	552	0	0	832	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	1777	0	0	0
Q Serve Time (g_s), s	0.0	5.1	0.0	0.0	18.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.1	0.0	0.0	18.6	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2664	0	0	1583	0	0	0
V/C Ratio (X)	0.00	0.21	0.00	0.00	0.53	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2664	0	0	1583	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.1	0.0	0.0	22.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	1.3	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.3	0.0	0.0	23.3	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	0.0	7.1	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.3	0.0	0.0	7.4	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.18	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	0
Lane Assignment				R	R			
Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	162	276	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1585	1585	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	11.0	12.9	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	11.0	12.9	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	194	706	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.84	0.39	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	336	706	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	47.2	20.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.6	1.6	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	50.8	22.1	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	9.3	4.4	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.3	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	9.5	4.7	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.94	0.23	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	72	0	776	51	89	70
Future Volume (veh/h)	72	0	776	51	89	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	0	843	55	97	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	534	0	2568	1146	129	115
Arrive On Green	0.04	0.00	0.72	0.72	0.07	0.07
Sat Flow, veh/h	1781	78	3647	1585	1781	1585
Grp Volume(v), veh/h	78	3.7	843	55	97	76
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	1.2		9.5	1.1	5.9	5.1
Cycle Q Clear(g_c), s	1.2		9.5	1.1	5.9	5.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	534		2568	1146	129	115
V/C Ratio(X)	0.15		0.33	0.05	0.75	0.66
Avail Cap(c_a), veh/h	671		2568	1146	324	288
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.7		5.5	4.4	50.1	49.7
Incr Delay (d2), s/veh	0.0		0.3	0.1	3.3	2.4
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3		2.7	0.3	2.7	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.7		5.9	4.5	53.4	52.1
LnGrp LOS	A		A	A	D	D
Approach Vol, veh/h			898		173	
Approach Delay, s/veh			5.8		52.8	
Approach LOS			A		D	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	10.5	85.5				14.0
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	13.0	59.0				20.0
Max Q Clear Time (g_c+I1), s	11.2	11.5				7.9
Green Ext Time (p_c), s	0.0	2.6				0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	72	0	776	51	89	70
Future Volume (veh/h)	72	0	776	51	89	70
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	0	843	55	97	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	534	0	2568	1146	129	115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.00	0.72	0.72	0.07	0.07
Unsig. Movement Delay						
Ln Grp Delay, s/veh	3.7	0.0	5.9	4.5	53.4	52.1
Ln Grp LOS	A	A	A	A	D	D
Approach Vol, veh/h		78	898		173	
Approach Delay, s/veh		3.7	5.8		52.8	
Approach LOS		A	A		D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	10.5	85.5	14.0					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	59.0	20.0					
Max Allow Headway (MAH), s	2.2	3.3	2.4					
Max Q Clear (g_c+I1), s	3.2	11.5	7.9					
Green Ext Time (g_e), s	0.0	2.6	0.1					
Prob of Phs Call (p_c)	0.91	1.00	0.99					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	78	0	97	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	1.2	0.0	5.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.2	0.0	5.9	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	620	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	79.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	79.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	534	0	129	0	0	0	0	0
V/C Ratio (X)	0.15	0.00	0.75	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	671	0	324	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	3.7	0.0	50.1	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	3.7	0.0	53.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.3	0.0	2.6	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.3	0.0	2.7	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.03	0.00	0.16	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	843	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2568	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2568	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	55	76	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	1.1	5.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.1	5.1	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1146	115	0	0	0	0	0
V/C Ratio (X)	0.00	0.05	0.66	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1146	288	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.4	49.7	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	2.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.5	52.1	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.3	2.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.3	2.1	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.07	0.12	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		12.7						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	3	35	4	0	0	4	106	12	0	119	39
Future Vol, veh/h	59	3	35	4	0	0	4	106	12	0	119	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	3	38	4	0	0	4	115	13	0	129	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	216	286	86	196	301	64	171	0	0	128	0	0
Stage 1	150	150	-	130	130	-	-	-	-	-	-	-
Stage 2	66	136	-	66	171	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	722	622	956	745	610	987	1404	-	-	1456	-	-
Stage 1	837	772	-	860	788	-	-	-	-	-	-	-
Stage 2	937	783	-	937	756	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	721	620	956	711	608	987	1404	-	-	1456	-	-
Mov Cap-2 Maneuver	721	620	-	711	608	-	-	-	-	-	-	-
Stage 1	834	772	-	857	786	-	-	-	-	-	-	-
Stage 2	934	781	-	896	756	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	10.1	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1404	-	-	721	917	711	-	1456	-	-
HCM Lane V/C Ratio	0.003	-	-	0.089	0.045	0.006	-	-	-	-
HCM Control Delay (s)	7.6	-	-	10.5	9.1	10.1	0	0	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0	-	0	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	144	21	14	0	0	144
Future Vol, veh/h	144	21	14	0	0	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	157	23	15	0	0	157

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	15	0	-	0	341	8
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	326	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1601	-	-	-	629	1072
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	704	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1601	-	-	-	567	1072
Mov Cap-2 Maneuver	-	-	-	-	567	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	704	-

Approach	EB	WB	SB
HCM Control Delay, s	6.5	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1601	-	-	-	1072
HCM Lane V/C Ratio	0.098	-	-	-	0.146
HCM Control Delay (s)	7.5	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	23	1	0	32	61	61	0	13	2
Future Vol, veh/h	0	0	11	23	1	0	32	61	61	0	13	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	25	1	0	35	66	66	0	14	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	185	217	15	190	185	99	16	0	0	132	0	0
Stage 1	15	15	-	169	169	-	-	-	-	-	-	-
Stage 2	170	202	-	21	16	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	776	681	1065	770	709	957	1602	-	-	1453	-	-
Stage 1	1005	883	-	833	759	-	-	-	-	-	-	-
Stage 2	832	734	-	998	882	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	761	665	1065	748	692	957	1602	-	-	1453	-	-
Mov Cap-2 Maneuver	761	665	-	748	692	-	-	-	-	-	-	-
Stage 1	981	883	-	813	741	-	-	-	-	-	-	-
Stage 2	811	716	-	987	882	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	10	1.5	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1602	-	-	1065	745	1453	-	-
HCM Lane V/C Ratio	0.022	-	-	0.011	0.035	-	-	-
HCM Control Delay (s)	7.3	0	-	8.4	10	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	30	0	11	0	473	79	16	787	0
Future Vol, veh/h	0	0	0	30	0	11	0	473	79	16	787	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	33	0	12	0	514	86	17	855	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1452	1489	855	1446	1446	557	855	0	0	600	0	0
Stage 1	889	889	-	557	557	-	-	-	-	-	-	-
Stage 2	563	600	-	889	889	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	108	124	358	109	132	530	785	-	-	977	-	-
Stage 1	338	361	-	515	512	-	-	-	-	-	-	-
Stage 2	511	490	-	338	361	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	104	122	358	108	130	530	785	-	-	977	-	-
Mov Cap-2 Maneuver	104	122	-	108	130	-	-	-	-	-	-	-
Stage 1	338	355	-	515	512	-	-	-	-	-	-	-
Stage 2	499	490	-	332	355	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	43.5	0	0.2
HCM LOS	A	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	785	-	-	-	137	977	-	-
HCM Lane V/C Ratio	-	-	-	-	0.325	0.018	-	-
HCM Control Delay (s)	0	-	-	0	43.5	8.8	-	-
HCM Lane LOS	A	-	-	A	E	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	1.3	0.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	207	0	131	0	421	258	276	541	0
Future Volume (veh/h)	0	0	0	207	0	131	0	421	258	276	541	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	225	0	142	0	458	280	300	588	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	321	0	459	0	272	153	623	381	342	1073	0
Arrive On Green	0.00	0.00	0.00	0.17	0.00	0.17	0.00	0.57	0.57	0.57	0.57	0.00
Sat Flow, veh/h	1246	1870	0	1781	0	1585	828	1087	664	720	1870	0
Grp Volume(v), veh/h	0	0	0	225	0	142	0	0	738	300	588	0
Grp Sat Flow(s),veh/h/ln	1246	1870	0	1781	0	1585	828	0	1751	720	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	5.6	0.0	3.8	0.0	0.0	14.6	12.4	9.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	5.6	0.0	3.8	0.0	0.0	14.6	27.0	9.2	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.38	1.00		0.00
Lane Grp Cap(c), veh/h	153	321	0	459	0	272	153	0	1004	342	1073	0
V/C Ratio(X)	0.00	0.00	0.00	0.49	0.00	0.52	0.00	0.00	0.74	0.88	0.55	0.00
Avail Cap(c_a), veh/h	495	834	0	947	0	707	153	0	1004	342	1073	0
HCM 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
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	18.5	0.0	17.7	0.0	0.0	7.4	19.6	6.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	0.6	0.0	0.0	2.5	21.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.1	0.0	1.3	0.0	0.0	4.1	5.0	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	18.8	0.0	18.3	0.0	0.0	9.9	40.7	6.6	0.0
LnGrp LOS	A	A	A	B	A	B	A	A	A	D	A	A
Approach Vol, veh/h		0			367			738			888	
Approach Delay, s/veh		0.0			18.6			9.9			18.1	
Approach LOS					B			A			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	33.0	14.1	33.0	14.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	27.0	21.0	27.0	21.0
Max Q Clear Time (g_c+I1), s	16.6	0.0	29.0	7.6
Green Ext Time (p_c), s	2.2	0.0	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	207	0	131	0	421	258	276	541	0
Future Volume (veh/h)	0	0	0	207	0	131	0	421	258	276	541	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	225	0	142	0	458	280	300	588	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	153	321	0	459	0	272	153	623	381	342	1073	0
HCM 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
Prop Arrive On Green	0.00	0.00	0.00	0.17	0.00	0.17	0.00	0.57	0.57	0.57	0.57	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	18.8	0.0	18.3	0.0	0.0	9.9	40.7	6.6	0.0
Ln Grp LOS	A	A	A	B	A	B	A	A	A	D	A	A
Approach Vol, veh/h		0			367			738			888	
Approach Delay, s/veh		0.0			18.6			9.9			18.1	
Approach LOS					B			A			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		33.0		14.1		33.0		14.1
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		27.0		21.0		27.0		21.0
Max Allow Headway (MAH), s		3.9		0.0		4.1		2.9
Max Q Clear (g_c+I1), s		16.6		0.0		29.0		7.6
Green Ext Time (g_e), s		2.2		0.0		0.0		0.5
Prob of Phs Call (p_c)		1.00		0.00		1.00		0.99
Prob of Max Out (p_x)		0.16		0.00		1.00		0.00

Left-Turn Movement Data				
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		828		1246		720		1781

Through Movement Data				
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1087		1870		1870		0

Right-Turn Movement Data				
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		664		0		0		1585

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	300	0	225
Grp Sat Flow (s), veh/h/ln	0	828	0	1246	0	720	0	1781
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	12.4	0.0	5.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	27.0	0.0	5.6
Perm LT Sat Flow (s_l), veh/h/ln	0	828	0	1246	0	720	0	1781
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	27.0	0.0	8.1
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	12.4	0.0	8.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	12.4	0.0	5.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	153	0	153	0	342	0	459
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.49
Avail Cap (c_a), veh/h	0	153	0	495	0	342	0	947
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	19.6	0.0	18.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	21.0	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	40.7	0.0	18.8
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	3.1	0.0	2.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	5.0	0.0	2.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	1.28	0.00	0.10
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment				T		T		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	588	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1870	0	1870	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	321	0	1073	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	834	0	1073	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R						T+R
Lanes in Grp	0	1	0	0	0	0	0	1
Grp Vol (v), veh/h	0	738	0	0	0	0	0	142
Grp Sat Flow (s), veh/h/ln	0	1751	0	0	0	0	0	1585
Q Serve Time (g_s), s	0.0	14.6	0.0	0.0	0.0	0.0	0.0	3.8
Cycle Q Clear Time (g_c), s	0.0	14.6	0.0	0.0	0.0	0.0	0.0	3.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.38	0.00	0.00	0.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1004	0	0	0	0	0	272
V/C Ratio (X)	0.00	0.74	0.00	0.00	0.00	0.00	0.00	0.52
Avail Cap (c_a), veh/h	0	1004	0	0	0	0	0	707
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.4	0.0	0.0	0.0	0.0	0.0	17.7
Incr Delay (d2), s/veh	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.9	0.0	0.0	0.0	0.0	0.0	18.3
1st-Term Q (Q1), veh/ln	0.0	3.4	0.0	0.0	0.0	0.0	0.0	1.2
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.1	0.0	0.0	0.0	0.0	0.0	1.3
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		15.2						
HCM 6th LOS		B						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	1873	15	237	577	96	86	243	258	232	211	250
Future Volume (veh/h)	340	1873	15	237	577	96	86	243	258	232	211	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	370	2036	16	258	627	104	93	264	280	252	229	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	429	2200	683	512	1994	889	276	536	454	206	536	
Arrive On Green	0.12	0.43	0.43	0.25	0.56	0.56	0.29	0.29	0.29	0.29	0.29	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1152	1870	1585	862	1870	1585
Grp Volume(v), veh/h	370	2036	16	258	627	104	93	264	280	252	229	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1152	1870	1585	862	1870	1585
Q Serve(g_s), s	12.6	45.3	0.7	9.7	11.3	3.7	8.6	14.1	18.4	20.3	11.9	0.0
Cycle Q Clear(g_c), s	12.6	45.3	0.7	9.7	11.3	3.7	20.5	14.1	18.4	34.4	11.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	429	2200	683	512	1994	889	276	536	454	206	536	
V/C Ratio(X)	0.86	0.93	0.02	0.50	0.31	0.12	0.34	0.49	0.62	1.22	0.43	
Avail Cap(c_a), veh/h	562	2200	683	512	1994	889	276	536	454	206	536	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.5	32.3	19.6	36.1	14.0	12.4	43.1	35.5	37.1	52.8	34.8	0.0
Incr Delay (d2), s/veh	8.6	8.2	0.1	0.3	0.4	0.3	0.3	0.3	1.8	135.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	18.8	0.3	6.1	4.2	1.3	2.5	6.5	7.3	14.0	5.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	40.5	19.7	36.4	14.4	12.6	43.4	35.8	38.9	188.4	35.0	0.0
LnGrp LOS	E	D	B	D	B	B	D	D	D	F	C	
Approach Vol, veh/h		2422			989			637			481	A
Approach Delay, s/veh		43.4			20.0			38.3			115.4	
Approach LOS		D			B			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	31.4	74.6		42.0	37.0	59.0		42.0
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 28	* 45		34.4	* 13	* 52		34.4
Max Q Clear Time (g_c+I1), s	14.6	13.3		22.5	11.7	47.3		36.4
Green Ext Time (p_c), s	0.3	2.3		0.8	0.0	3.2		0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	1873	15	237	577	96	86	243	258	232	211	250
Future Volume (veh/h)	340	1873	15	237	577	96	86	243	258	232	211	250
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	370	2036	16	258	627	104	93	264	280	252	229	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	429	2200	683	512	1994	889	276	536	454	206	536	
HCM 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
Prop Arrive On Green	0.12	0.43	0.43	0.25	0.56	0.56	0.29	0.29	0.29	0.29	0.29	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	60.2	40.5	19.7	36.4	14.4	12.6	43.4	35.8	38.9	188.4	35.0	0.0
Ln Grp LOS	E	D	B	D	B	B	D	D	D	F	C	
Approach Vol, veh/h		2422			989			637			481	
Approach Delay, s/veh		43.4			20.0			38.3			115.4	
Approach LOS		D			B			D			F	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	6	5		8
Case No	2.0	3.0		5.0	3.0	1.3		5.0
Phs Duration (G+Y+Rc), s	21.4	74.6		42.0	59.0	37.0		42.0
Change Period (Y+Rc), s	* 6.5	* 7.3		7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 20	* 45		34.4	* 52	* 13		34.4
Max Allow Headway (MAH), s	2.5	3.5		2.8	3.6	1.3		3.5
Max Q Clear (g_c+I1), s	14.6	13.3		22.5	47.3	11.7		36.4
Green Ext Time (g_e), s	0.3	2.3		0.8	3.2	0.0		0.0
Prob of Phs Call (p_c)	1.00	1.00		1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.06	0.00		0.00	0.00	1.00		1.00

Left-Turn Movement Data				
Assigned Mvmt	1	7	5	3
Mvmt Sat Flow, veh/h	3456	1152	1781	862

Through Movement Data				
Assigned Mvmt	2	4	6	8
Mvmt Sat Flow, veh/h	3554	1870	5106	1870

Right-Turn Movement Data				
Assigned Mvmt	12	14	16	18
Mvmt Sat Flow, veh/h	1585	1585	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	0	0	7	0	5	0	3
Lane Assignment	L (Prot)			L	L (Pr/Pm)			L

Lanes in Grp	2	0	0	1	0	1	0	1
Grp Vol (v), veh/h	370	0	0	93	0	258	0	252
Grp Sat Flow (s), veh/h/ln	1728	0	0	1152	0	1781	0	862
Q Serve Time (g_s), s	12.6	0.0	0.0	8.6	0.0	9.7	0.0	20.3
Cycle Q Clear Time (g_c), s	12.6	0.0	0.0	20.5	0.0	9.7	0.0	34.4
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1152	0	205	0	862
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	34.4	0.0	51.7	0.0	34.4
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	22.5	0.0	6.4	0.0	20.3
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	8.6	0.0	6.4	0.0	20.3
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	429	0	0	276	0	512	0	206
V/C Ratio (X)	0.86	0.00	0.00	0.34	0.00	0.50	0.00	1.22
Avail Cap (c_a), veh/h	562	0	0	276	0	512	0	206
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	51.5	0.0	0.0	43.1	0.0	36.1	0.0	52.8
Incr Delay (d2), s/veh	8.6	0.0	0.0	0.3	0.0	0.3	0.0	135.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	60.2	0.0	0.0	43.4	0.0	36.4	0.0	188.4
1st-Term Q (Q1), veh/ln	5.3	0.0	0.0	2.4	0.0	6.0	0.0	6.3
2nd-Term Q (Q2), veh/ln	0.5	0.0	0.0	0.0	0.0	0.0	0.0	7.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	5.8	0.0	0.0	2.5	0.0	6.1	0.0	14.0
%ile Storage Ratio (RQ%)	0.34	0.00	0.00	0.39	0.00	0.57	0.00	1.56
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	627	0	264	2036	0	0	229
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	11.3	0.0	14.1	45.3	0.0	0.0	11.9
Cycle Q Clear Time (g_c), s	0.0	11.3	0.0	14.1	45.3	0.0	0.0	11.9
Lane Grp Cap (c), veh/h	0	1994	0	536	2200	0	0	536
V/C Ratio (X)	0.00	0.31	0.00	0.49	0.93	0.00	0.00	0.43
Avail Cap (c_a), veh/h	0	1994	0	536	2200	0	0	536
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.0	0.0	35.5	32.3	0.0	0.0	34.8
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.3	8.2	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.4	0.0	35.8	40.5	0.0	0.0	35.0
1st-Term Q (Q1), veh/ln	0.0	4.1	0.0	6.4	17.1	0.0	0.0	5.4
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	1.7	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.2	0.0	6.5	18.8	0.0	0.0	5.5
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.26	0.39	0.00	0.00	0.61
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	104	0	280	16	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	3.7	0.0	18.4	0.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.7	0.0	18.4	0.7	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	889	0	454	683	0	0	454
V/C Ratio (X)	0.00	0.12	0.00	0.62	0.02	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	889	0	454	683	0	0	454
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.4	0.0	37.1	19.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	1.8	0.1	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	12.6	0.0	38.9	19.7	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	7.1	0.2	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.3	0.0	7.3	0.3	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	1.16	0.01	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1858	356	274	637	2	298	15	195	175	255	682
Future Volume (veh/h)	22	1858	356	274	637	2	298	15	195	175	255	682
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	2020	387	298	692	2	324	16	212	190	277	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	840	2774	861	313	1670	745	377	449	200	245	293	
Arrive On Green	0.24	0.54	0.54	0.18	0.47	0.47	0.11	0.13	0.13	0.07	0.08	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	24	2020	387	298	692	2	324	16	212	190	277	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.6	35.9	14.2	19.9	15.4	0.1	11.1	0.5	15.2	6.5	9.3	0.0
Cycle Q Clear(g_c), s	0.6	35.9	14.2	19.9	15.4	0.1	11.1	0.5	15.2	6.5	9.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	840	2774	861	313	1670	745	377	449	200	245	293	
V/C Ratio(X)	0.03	0.73	0.45	0.95	0.41	0.00	0.86	0.04	1.06	0.77	0.94	
Avail Cap(c_a), veh/h	840	2774	861	313	1670	745	397	449	200	392	293	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.6	20.7	10.7	48.9	20.9	14.2	52.6	46.0	52.4	54.8	54.8	0.0
Incr Delay (d2), s/veh	0.0	1.7	1.7	37.7	0.8	0.0	15.6	0.0	80.0	2.0	37.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	13.2	5.2	11.8	6.1	0.0	5.6	0.2	10.5	2.9	5.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	22.4	12.4	86.6	21.7	14.2	68.1	46.0	132.4	56.8	92.4	0.0
LnGrp LOS	C	C	B	F	C	B	E	D	F	E	F	
Approach Vol, veh/h		2431			992			552			467	A
Approach Delay, s/veh		20.9			41.2			92.2			77.9	
Approach LOS		C			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.4	63.0	14.9	21.4	27.0	73.4	19.3	17.0
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 6.2	5.9	* 7.7	6.2	* 7.1
Max Green Setting (Gmax), s	12.3	* 56	13.6	* 11	21.1	* 50	13.8	* 9.9
Max Q Clear Time (g_c+I1), s	12.6	17.4	8.5	17.2	21.9	37.9	13.1	11.3
Green Ext Time (p_c), s	0.0	2.5	0.1	0.0	0.0	7.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	40.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1858	356	274	637	2	298	15	195	175	255	682
Future Volume (veh/h)	22	1858	356	274	637	2	298	15	195	175	255	682
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	2020	387	298	692	2	324	16	212	190	277	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	840	2774	861	313	1670	745	377	449	200	245	293	
HCM 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
Prop Arrive On Green	0.24	0.54	0.54	0.18	0.47	0.47	0.11	0.13	0.13	0.07	0.08	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	34.6	22.4	12.4	86.6	21.7	14.2	68.1	46.0	132.4	56.8	92.4	0.0
Ln Grp LOS	C	C	B	F	C	B	E	D	F	E	F	
Approach Vol, veh/h		2431			992			552			467	
Approach Delay, s/veh		20.9			41.2			92.2			77.9	
Approach LOS		C			D			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	3	4	5	6	8	7
Case No	3.0	2.0	2.0	3.0	2.0	3.0	3.0	2.0
Phs Duration (G+Y+Rc), s	63.0	37.4	14.9	21.4	27.0	73.4	17.0	19.3
Change Period (Y+Rc), s	* 6.6	7.7	6.4	* 6.2	5.9	* 7.7	* 7.1	6.2
Max Green (Gmax), s	* 56	12.3	13.6	* 11	21.1	* 50	* 9.9	13.8
Max Allow Headway (MAH), s	3.6	1.3	1.6	2.3	1.3	3.5	3.1	1.4
Max Q Clear (g_c+I1), s	17.4	2.6	8.5	17.2	21.9	37.9	11.3	13.1
Green Ext Time (g_e), s	2.5	0.0	0.1	0.0	0.0	7.1	0.0	0.0
Prob of Phs Call (p_c)	1.00	0.55	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt		1	3		5			7
Mvmt Sat Flow, veh/h		3456	3456		1781			3456

Through Movement Data								
Assigned Mvmt	2			4		6	8	
Mvmt Sat Flow, veh/h	3554			3554		5106	3554	

Right-Turn Movement Data								
Assigned Mvmt	12			14		16	18	
Mvmt Sat Flow, veh/h	1585			1585		1585	1585	

Left Lane Group Data								
Assigned Mvmt	0	1	3	0	5	0	0	7
Lane Assignment		L (Prot)	L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	0	2	2	0	1	0	0	2
Grp Vol (v), veh/h	0	24	190	0	298	0	0	324
Grp Sat Flow (s), veh/h/ln	0	1728	1728	0	1781	0	0	1728
Q Serve Time (g_s), s	0.0	0.6	6.5	0.0	19.9	0.0	0.0	11.1
Cycle Q Clear Time (g_c), s	0.0	0.6	6.5	0.0	19.9	0.0	0.0	11.1
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	840	245	0	313	0	0	377
V/C Ratio (X)	0.00	0.03	0.77	0.00	0.95	0.00	0.00	0.86
Avail Cap (c_a), veh/h	0	840	392	0	313	0	0	397
Upstream Filter (I)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	34.6	54.8	0.0	48.9	0.0	0.0	52.6
Incr Delay (d2), s/veh	0.0	0.0	2.0	0.0	37.7	0.0	0.0	15.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	34.6	56.8	0.0	86.6	0.0	0.0	68.1
1st-Term Q (Q1), veh/ln	0.0	0.3	2.8	0.0	8.5	0.0	0.0	4.8
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	3.3	0.0	0.0	0.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	2.9	0.0	11.8	0.0	0.0	5.6
%ile Storage Ratio (RQ%)	0.00	0.03	0.31	0.00	1.33	0.00	0.00	0.55
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	8	0
Lane Assignment	T			T		T	T	
Lanes in Grp	2	0	0	2	0	3	2	0
Grp Vol (v), veh/h	692	0	0	16	0	2020	277	0
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	15.4	0.0	0.0	0.5	0.0	35.9	9.3	0.0
Cycle Q Clear Time (g_c), s	15.4	0.0	0.0	0.5	0.0	35.9	9.3	0.0
Lane Grp Cap (c), veh/h	1670	0	0	449	0	2774	293	0
V/C Ratio (X)	0.41	0.00	0.00	0.04	0.00	0.73	0.94	0.00
Avail Cap (c_a), veh/h	1670	0	0	449	0	2774	293	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	20.9	0.0	0.0	46.0	0.0	20.7	54.8	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	1.7	37.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	21.7	0.0	0.0	46.0	0.0	22.4	92.4	0.0
1st-Term Q (Q1), veh/ln	6.0	0.0	0.0	0.2	0.0	12.8	4.2	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.0	0.0	0.0	0.4	1.5	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	6.1	0.0	0.0	0.2	0.0	13.2	5.7	0.0
%ile Storage Ratio (RQ%)	0.15	0.00	0.00	0.01	0.00	0.68	0.18	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	18	0
Lane Assignment	R			R		R	R	
Lanes in Grp	1	0	0	1	0	1	1	0
Grp Vol (v), veh/h	2	0	0	212	0	387	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	1585	0
Q Serve Time (g_s), s	0.1	0.0	0.0	15.2	0.0	14.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.1	0.0	0.0	15.2	0.0	14.2	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	745	0	0	200	0	861	131	0
V/C Ratio (X)	0.00	0.00	0.00	1.06	0.00	0.45	0.00	0.00
Avail Cap (c_a), veh/h	745	0	0	200	0	861	131	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	14.2	0.0	0.0	52.4	0.0	10.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	80.0	0.0	1.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	14.2	0.0	0.0	132.4	0.0	12.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.0	0.0	4.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	4.5	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	10.5	0.0	5.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	1.02	0.00	0.58	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	40.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1100	171	161	660	467	284
Future Volume (veh/h)	1100	171	161	660	467	284
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1196	186	175	717	508	309
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1744	778	421	2387	729	334
Arrive On Green	0.49	0.49	0.12	0.67	0.21	0.21
Sat Flow, veh/h	3647	1585	3456	3647	3456	1585
Grp Volume(v), veh/h	1196	186	175	717	508	309
Grp Sat Flow(s),veh/h/ln	1777	1585	1728	1777	1728	1585
Q Serve(g_s), s	31.0	8.1	5.6	10.0	16.3	22.9
Cycle Q Clear(g_c), s	31.0	8.1	5.6	10.0	16.3	22.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1744	778	421	2387	729	334
V/C Ratio(X)	0.69	0.24	0.42	0.30	0.70	0.92
Avail Cap(c_a), veh/h	1744	778	421	2387	786	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	17.6	48.8	8.1	43.8	46.4
Incr Delay (d2), s/veh	2.2	0.7	0.2	0.3	2.0	27.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.4	2.9	2.4	3.3	7.2	20.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.7	18.3	49.0	8.4	45.8	73.5
LnGrp LOS	C	B	D	A	D	E
Approach Vol, veh/h	1382			892	817	
Approach Delay, s/veh	24.7			16.4	56.3	
Approach LOS	C			B	E	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		88.0		32.0	22.0	66.0
Change Period (Y+Rc), s		* 7.4		* 6.7	7.4	* 7.1
Max Green Setting (Gmax), s		* 79		* 27	12.6	* 59
Max Q Clear Time (g_c+I1), s		12.0		24.9	7.6	33.0
Green Ext Time (p_c), s		2.8		0.4	0.1	5.5

Intersection Summary	
HCM 6th Ctrl Delay	30.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1100	171	161	660	467	284
Future Volume (veh/h)	1100	171	161	660	467	284
Number	6	16	5	2	7	14
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1196	186	175	717	508	309
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence			Yes		Yes	
Cap, veh/h	1744	778	421	2387	729	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.49	0.49	0.12	0.67	0.21	0.21
Unsig. Movement Delay						
Ln Grp Delay, s/veh	25.7	18.3	49.0	8.4	45.8	73.5
Ln Grp LOS	C	B	D	A	D	E
Approach Vol, veh/h	1382			892	817	
Approach Delay, s/veh	24.7			16.4	56.3	
Approach LOS	C			B	E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	6	5		
Case No		4.0		9.0	7.0	2.0		
Phs Duration (G+Y+Rc), s		88.0		32.0	66.0	22.0		
Change Period (Y+Rc), s		* 7.4		* 6.7	* 7.1	7.4		
Max Green (Gmax), s		* 79		* 27	* 59	12.6		
Max Allow Headway (MAH), s		3.7		2.2	3.6	2.2		
Max Q Clear (g_c+I1), s		12.0		24.9	33.0	7.6		
Green Ext Time (g_e), s		2.8		0.4	5.5	0.1		
Prob of Phs Call (p_c)		1.00		1.00	1.00	1.00		
Prob of Max Out (p_x)		0.00		0.91	0.00	0.00		
Left-Turn Movement Data								
Assigned Mvmt				7	1	5		
Mvmt Sat Flow, veh/h				3456	0	3456		
Through Movement Data								
Assigned Mvmt		2		4	6			
Mvmt Sat Flow, veh/h		3647		0	3647			
Right-Turn Movement Data								
Assigned Mvmt		12		14	16			
Mvmt Sat Flow, veh/h		0		1585	1585			
Left Lane Group Data								
Assigned Mvmt	0	0	0	7	1	5	0	0
Lane Assignment				L		L (Prot)		

Lanes in Grp	0	0	0	2	0	2	0	0
Grp Vol (v), veh/h	0	0	0	508	0	175	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1728	0	1728	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	16.3	0.0	5.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	16.3	0.0	5.6	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1728	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	58.9	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	729	0	421	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.70	0.00	0.42	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	786	0	421	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	43.8	0.0	48.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	45.8	0.0	49.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.0	0.0	2.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	7.2	0.0	2.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.71	0.00	0.24	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	0
Lane Assignment		T			T			
Lanes in Grp	0	2	0	0	2	0	0	0
Grp Vol (v), veh/h	0	717	0	0	1196	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	1777	0	0	0
Q Serve Time (g_s), s	0.0	10.0	0.0	0.0	31.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.0	0.0	0.0	31.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2387	0	0	1744	0	0	0
V/C Ratio (X)	0.00	0.30	0.00	0.00	0.69	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2387	0	0	1744	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.1	0.0	0.0	23.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	2.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.4	0.0	0.0	25.7	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.2	0.0	0.0	11.9	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.5	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.3	0.0	0.0	12.4	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.00	0.30	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	0
Lane Assignment				R	R			
Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	309	186	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1585	1585	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	22.9	8.1	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	22.9	8.1	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	334	778	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.92	0.24	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	361	778	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	46.4	17.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	27.1	0.7	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	73.5	18.3	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	18.4	2.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	2.5	0.2	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	20.9	2.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	2.07	0.14	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	30.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	0	1077	50	113	131
Future Volume (veh/h)	22	0	1077	50	113	131
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	0	1171	54	123	142
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	367	0	2562	1143	189	168
Arrive On Green	0.02	0.00	0.72	0.72	0.11	0.11
Sat Flow, veh/h	1781	24	3647	1585	1781	1585
Grp Volume(v), veh/h	24	5.2	1171	54	123	142
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	0.4		16.5	1.2	8.0	10.6
Cycle Q Clear(g_c), s	0.4		16.5	1.2	8.0	10.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	367		2562	1143	189	168
V/C Ratio(X)	0.07		0.46	0.05	0.65	0.84
Avail Cap(c_a), veh/h	489		2562	1143	312	277
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.2		7.0	4.8	51.5	52.7
Incr Delay (d2), s/veh	0.0		0.6	0.1	1.4	5.5
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1		5.0	0.3	3.6	4.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.2		7.6	4.9	52.9	58.1
LnGrp LOS	A		A	A	D	E
Approach Vol, veh/h			1225		265	
Approach Delay, s/veh			7.4		55.7	
Approach LOS			A		E	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	8.8	92.5				18.7
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	11.0	70.0				21.0
Max Q Clear Time (g_c+I1), s	2.4	18.5				12.6
Green Ext Time (p_c), s	0.0	4.0				0.2

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	0	1077	50	113	131
Future Volume (veh/h)	22	0	1077	50	113	131
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	0	1171	54	123	142
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	367	0	2562	1143	189	168
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.02	0.00	0.72	0.72	0.11	0.11
Unsig. Movement Delay						
Ln Grp Delay, s/veh	5.2	0.0	7.6	4.9	52.9	58.1
Ln Grp LOS	A	A	A	A	D	E
Approach Vol, veh/h		24	1225		265	
Approach Delay, s/veh		5.2	7.4		55.7	
Approach LOS		A	A		E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	8.8	92.5	18.7					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	11.0	70.0	21.0					
Max Allow Headway (MAH), s	2.2	3.3	2.4					
Max Q Clear (g_c+I1), s	2.4	18.5	12.6					
Green Ext Time (g_e), s	0.0	4.0	0.2					
Prob of Phs Call (p_c)	0.55	1.00	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	24	0	123	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	0.4	0.0	8.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.4	0.0	8.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	455	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	86.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	86.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	367	0	189	0	0	0	0	0
V/C Ratio (X)	0.07	0.00	0.65	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	489	0	312	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	5.2	0.0	51.5	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	5.2	0.0	52.9	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.1	0.0	3.6	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.1	0.0	3.6	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.01	0.00	0.21	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1171	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	16.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	16.5	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2562	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2562	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.6	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	54	142	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	1.2	10.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.2	10.6	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1143	168	0	0	0	0	0
V/C Ratio (X)	0.00	0.05	0.84	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1143	277	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.8	52.7	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	5.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.9	58.1	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.3	4.2	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.3	4.5	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.26	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		15.9						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	10	148	44	1	1	26	98	4	0	251	27
Future Vol, veh/h	25	10	148	44	1	1	26	98	4	0	251	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	11	161	48	1	1	28	107	4	0	273	29

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	398	455	151	307	467	56	302	0	0	111	0	0
Stage 1	288	288	-	165	165	-	-	-	-	-	-	-
Stage 2	110	167	-	142	302	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	536	500	868	622	492	999	1256	-	-	1477	-	-
Stage 1	695	672	-	821	761	-	-	-	-	-	-	-
Stage 2	883	759	-	846	663	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	525	489	868	490	481	999	1256	-	-	1477	-	-
Mov Cap-2 Maneuver	525	489	-	490	481	-	-	-	-	-	-	-
Stage 1	680	672	-	803	744	-	-	-	-	-	-	-
Stage 2	861	742	-	678	663	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	13	1.6	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1256	-	-	525	827	490	649	1477	-	-
HCM Lane V/C Ratio	0.023	-	-	0.052	0.208	0.098	0.003	-	-	-
HCM Control Delay (s)	7.9	-	-	12.2	10.5	13.1	10.6	0	-	-
HCM Lane LOS	A	-	-	B	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.8	0.3	0	0	-	-

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	108	16	69	0	1	209
Future Vol, veh/h	108	16	69	0	1	209
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	117	17	75	0	1	227

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	75	0	-	0	318	38
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	243	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1522	-	-	-	650	1026
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	775	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1522	-	-	-	600	1026
Mov Cap-2 Maneuver	-	-	-	-	600	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	775	-

Approach	EB	WB	SB
HCM Control Delay, s	6.6	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1522	-	-	-	1023
HCM Lane V/C Ratio	0.077	-	-	-	0.223
HCM Control Delay (s)	7.6	-	-	-	9.5
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	1	30	124	2	1	11	46	51	0	56	1
Future Vol, veh/h	7	1	30	124	2	1	11	46	51	0	56	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	1	33	135	2	1	12	50	55	0	61	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	165	191	62	181	164	78	62	0	0	105	0	0
Stage 1	62	62	-	102	102	-	-	-	-	-	-	-
Stage 2	103	129	-	79	62	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	800	704	1003	781	729	983	1541	-	-	1486	-	-
Stage 1	949	843	-	904	811	-	-	-	-	-	-	-
Stage 2	903	789	-	930	843	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	793	698	1003	750	723	983	1541	-	-	1486	-	-
Mov Cap-2 Maneuver	793	698	-	750	723	-	-	-	-	-	-	-
Stage 1	941	843	-	897	805	-	-	-	-	-	-	-
Stage 2	892	783	-	899	843	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	10.9	0.7	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1541	-	-	946	751	1486	-	-
HCM Lane V/C Ratio	0.008	-	-	0.044	0.184	-	-	-
HCM Control Delay (s)	7.4	0	-	9	10.9	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.7	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	32	0	6	3	337	49	2	295	0
Future Volume (veh/h)	0	0	0	32	0	6	3	337	49	2	295	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	35	0	7	3	366	53	2	321	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	97	0	387	0	12	180	569	82	845	668	0
Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.05	0.36	0.36	0.36	0.36	0.36	0.00
Sat Flow, veh/h	0	1870	0	1202	0	240	4	1592	229	968	1870	0
Grp Volume(v), veh/h	0	0	0	42	0	0	422	0	0	2	321	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1443	0	0	1826	0	0	968	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.6	0.0	0.0	3.9	0.0	0.0	0.0	2.7	0.0
Prop In Lane	0.00		0.00	0.83		0.17	0.01		0.13	1.00		0.00
Lane Grp Cap(c), veh/h	0	97	0	400	0	0	831	0	0	845	668	0
V/C Ratio(X)	0.00	0.00	0.00	0.11	0.00	0.00	0.51	0.00	0.00	0.00	0.48	0.00
Avail Cap(c_a), veh/h	0	2025	0	1887	0	0	3405	0	0	2214	3314	0
HCM 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
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	9.4	0.0	0.0	5.5	0.0	0.0	4.2	5.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.5	0.0	0.0	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	9.4	0.0	0.0	5.6	0.0	0.0	4.2	5.3	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			42			422			323	
Approach Delay, s/veh		0.0			9.4			5.6			5.3	
Approach LOS					A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	13.3	7.1	13.3	7.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	36.0	22.0	36.0	22.0
Max Q Clear Time (g_c+I1), s	5.9	0.0	4.7	2.6
Green Ext Time (p_c), s	1.3	0.0	1.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	32	0	6	3	337	49	2	295	0
Future Volume (veh/h)	0	0	0	32	0	6	3	337	49	2	295	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	35	0	7	3	366	53	2	321	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	0	97	0	387	0	12	180	569	82	845	668	0
HCM 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
Prop Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.05	0.36	0.36	0.36	0.36	0.36	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	9.4	0.0	0.0	5.6	0.0	0.0	4.2	5.3	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			42			422			323	
Approach Delay, s/veh		0.0			9.4			5.6			5.3	
Approach LOS					A			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		8.0		6.0		8.0
Phs Duration (G+Y+Rc), s		13.3		7.1		13.3		7.1
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		36.0		22.0		36.0		22.0
Max Allow Headway (MAH), s		3.8		0.0		3.7		3.8
Max Q Clear (g_c+I1), s		5.9		0.0		4.7		2.6
Green Ext Time (g_e), s		1.3		0.0		1.0		0.1
Prob of Phs Call (p_c)		1.00		0.00		1.00		0.21
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		4		0		968		1202
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1592		1870		1870		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		229		0		0		240
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R				L		L+T+R

Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	422	0	0	0	2	0	42
Grp Sat Flow (s), veh/h/ln	0	1826	0	0	0	968	0	1443
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear Time (g_c), s	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.6
Perm LT Sat Flow (s_l), veh/h/ln	0	1075	0	0	0	968	0	1440
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	1720	0	0
Perm LT Eff Green (g_p), s	0.0	7.3	0.0	0.0	0.0	7.3	0.0	1.1
Perm LT Serve Time (g_u), s	0.0	4.6	0.0	0.0	0.0	3.3	0.0	1.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Time to First Blk (g_f), s	0.0	4.8	0.0	1.1	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.01	0.00	0.00	0.00	1.00	0.00	0.83
Lane Grp Cap (c), veh/h	0	831	0	0	0	845	0	400
V/C Ratio (X)	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.11
Avail Cap (c_a), veh/h	0	3405	0	0	0	2214	0	1887
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	5.5	0.0	0.0	0.0	4.2	0.0	9.4
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.6	0.0	0.0	0.0	4.2	0.0	9.4
1st-Term Q (Q1), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment				T		T		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	321	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1870	0	1870	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	97	0	668	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	2025	0	3314	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.17
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	260	0	150	0	194	22	141	228	0
Future Volume (veh/h)	0	0	0	260	0	150	0	194	22	141	228	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	283	0	163	0	211	24	153	248	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	252	432	0	663	0	366	252	576	66	543	654	0
Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.00	0.35	0.35	0.35	0.35	0.00
Sat Flow, veh/h	1223	1870	0	1781	0	1585	1132	1649	188	1145	1870	0
Grp Volume(v), veh/h	0	0	0	283	0	163	0	0	235	153	248	0
Grp Sat Flow(s),veh/h/ln	1223	1870	0	1781	0	1585	1132	0	1837	1145	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	4.2	0.0	2.5	0.0	0.0	2.7	3.3	2.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.2	0.0	2.5	0.0	0.0	2.7	6.0	2.8	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.10	1.00		0.00
Lane Grp Cap(c), veh/h	252	432	0	663	0	366	252	0	642	543	654	0
V/C Ratio(X)	0.00	0.00	0.00	0.43	0.00	0.45	0.00	0.00	0.37	0.28	0.38	0.00
Avail Cap(c_a), veh/h	952	1504	0	1684	0	1274	845	0	1605	1143	1634	0
HCM 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
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	10.1	0.0	9.4	0.0	0.0	6.9	9.2	7.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.0	0.1	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.1	0.0	0.6	0.0	0.0	0.6	0.6	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	10.2	0.0	9.7	0.0	0.0	7.1	9.3	7.1	0.0
LnGrp LOS	A	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			446			235			401	
Approach Delay, s/veh		0.0			10.0			7.1			7.9	
Approach LOS					B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	16.0	12.6	16.0	12.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	25.0	23.0	25.0	23.0
Max Q Clear Time (g_c+I1), s	4.7	0.0	8.0	6.2
Green Ext Time (p_c), s	0.6	0.0	0.9	0.7

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	260	0	150	0	194	22	141	228	0
Future Volume (veh/h)	0	0	0	260	0	150	0	194	22	141	228	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	283	0	163	0	211	24	153	248	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	252	432	0	663	0	366	252	576	66	543	654	0
HCM 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
Prop Arrive On Green	0.00	0.00	0.00	0.23	0.00	0.23	0.00	0.35	0.35	0.35	0.35	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	10.2	0.0	9.7	0.0	0.0	7.1	9.3	7.1	0.0
Ln Grp LOS	A	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			446			235			401	
Approach Delay, s/veh		0.0			10.0			7.1			7.9	
Approach LOS					B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		16.0		12.6		16.0		12.6
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		25.0		23.0		25.0		23.0
Max Allow Headway (MAH), s		3.8		0.0		3.4		2.9
Max Q Clear (g_c+I1), s		4.7		0.0		8.0		6.2
Green Ext Time (g_e), s		0.6		0.0		0.9		0.7
Prob of Phs Call (p_c)		1.00		0.00		1.00		0.97
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		1132		1223		1145		1781
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1649		1870		1870		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		188		0		0		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	153	0	283
Grp Sat Flow (s), veh/h/ln	0	1132	0	1223	0	1145	0	1781
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	4.2
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	6.0	0.0	4.2
Perm LT Sat Flow (s_l), veh/h/ln	0	1132	0	1223	0	1145	0	1781
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	10.0	0.0	6.6
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	7.3	0.0	6.6
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	4.2
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	252	0	252	0	543	0	663
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.43
Avail Cap (c_a), veh/h	0	845	0	952	0	1143	0	1684
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	9.2	0.0	10.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	9.3	0.0	10.2
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.6	0.0	1.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.28
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment				T		T		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	248	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1870	0	1870	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	432	0	654	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	1504	0	1634	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R						T+R
Lanes in Grp	0	1	0	0	0	0	0	1
Grp Vol (v), veh/h	0	235	0	0	0	0	0	163
Grp Sat Flow (s), veh/h/ln	0	1837	0	0	0	0	0	1585
Q Serve Time (g_s), s	0.0	2.7	0.0	0.0	0.0	0.0	0.0	2.5
Cycle Q Clear Time (g_c), s	0.0	2.7	0.0	0.0	0.0	0.0	0.0	2.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.10	0.00	0.00	0.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	642	0	0	0	0	0	366
V/C Ratio (X)	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.45
Avail Cap (c_a), veh/h	0	1605	0	0	0	0	0	1274
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	6.9	0.0	0.0	0.0	0.0	0.0	9.4
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.1	0.0	0.0	0.0	0.0	0.0	9.7
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.6
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		8.6						
HCM 6th LOS		A						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	854	4	192	591	60	32	89	102	87	92	148
Future Volume (veh/h)	173	854	4	192	591	60	32	89	102	87	92	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	928	4	209	642	65	35	97	0	95	100	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	1721	534	984	1973	880	137	177		160	292	
Arrive On Green	0.07	0.34	0.34	0.28	0.56	0.56	0.05	0.05	0.00	0.05	0.16	0.00
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	1295	3554	1585	3456	1870	1585
Grp Volume(v), veh/h	188	928	4	209	642	65	35	97	0	95	100	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1295	1777	1585	1728	1870	1585
Q Serve(g_s), s	5.3	14.7	0.2	4.6	9.8	1.9	2.6	2.7	0.0	2.7	4.8	0.0
Cycle Q Clear(g_c), s	5.3	14.7	0.2	4.6	9.8	1.9	2.6	2.7	0.0	2.7	4.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	257	1721	534	984	1973	880	137	177		160	292	
V/C Ratio(X)	0.73	0.54	0.01	0.21	0.33	0.07	0.26	0.55		0.59	0.34	
Avail Cap(c_a), veh/h	536	1721	534	984	1973	880	194	334		484	550	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.3	26.9	22.0	27.2	12.1	10.3	46.4	46.4	0.0	46.8	37.6	0.0
Incr Delay (d2), s/veh	1.5	1.2	0.0	0.0	0.4	0.2	0.4	1.0	0.0	3.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	5.7	0.1	1.8	3.5	0.7	0.9	1.2	0.0	1.2	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	28.1	22.1	27.3	12.5	10.5	46.7	47.4	0.0	50.2	37.9	0.0
LnGrp LOS	D	C	C	C	B	B	D	D		D	D	
Approach Vol, veh/h		1120			916			132	A		195	A
Approach Delay, s/veh		31.2			15.7			47.2			43.9	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	13.9	62.8	10.6	12.6	35.8	41.0		23.2
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 16	* 34	14.0	9.4	* 16	* 34		29.4
Max Q Clear Time (g_c+I1), s	7.3	11.8	4.7	4.7	6.6	16.7		6.8
Green Ext Time (p_c), s	0.2	2.2	0.2	0.1	0.0	3.2		0.2

Intersection Summary	
HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	854	4	192	591	60	32	89	102	87	92	148
Future Volume (veh/h)	173	854	4	192	591	60	32	89	102	87	92	148
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	928	4	209	642	65	35	97	0	95	100	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	257	1721	534	984	1973	880	137	177		160	292	
HCM 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
Prop Arrive On Green	0.07	0.34	0.34	0.28	0.56	0.56	0.05	0.05	0.00	0.05	0.16	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	46.8	28.1	22.1	27.3	12.5	10.5	46.7	47.4	0.0	50.2	37.9	0.0
Ln Grp LOS	D	C	C	C	B	B	D	D		D	D	
Approach Vol, veh/h		1120			916			132			195	
Approach Delay, s/veh		31.2			15.7			47.2			43.9	
Approach LOS		C			B			D			D	

Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	6	5		8			
Case No		2.0	3.0	2.0	5.3	3.0	2.0		3.0			
Phs Duration (G+Y+Rc), s		13.9	62.8	10.6	12.6	41.0	35.8		23.2			
Change Period (Y+Rc), s		* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6			
Max Green (Gmax), s		* 16	* 34	14.0	9.4	* 34	* 16		29.4			
Max Allow Headway (MAH), s		2.5	3.5	3.8	3.1	3.6	1.3		3.4			
Max Q Clear (g_c+I1), s		7.3	11.8	4.7	4.7	16.7	6.6		6.8			
Green Ext Time (g_e), s		0.2	2.2	0.2	0.1	3.2	0.0		0.2			
Prob of Phs Call (p_c)		0.99	1.00	0.93	1.00	1.00	1.00		1.00			
Prob of Max Out (p_x)		0.00	0.00	0.00	0.11	0.00	0.00		0.00			

Left-Turn Movement Data												
Assigned Mvmt		1		3	7		5					
Mvmt Sat Flow, veh/h		3456		3456	1295		3456					

Through Movement Data												
Assigned Mvmt			2		4	6			8			
Mvmt Sat Flow, veh/h			3554		3554	5106			1870			

Right-Turn Movement Data												
Assigned Mvmt			12		14	16			18			
Mvmt Sat Flow, veh/h			1585		1585	1585			1585			

Left Lane Group Data												
Assigned Mvmt		1	0	3	7	0	5	0	0			
Lane Assignment		L (Prot)		L (Prot)	L		L (Prot)					

Lanes in Grp	2	0	2	1	0	2	0	0
Grp Vol (v), veh/h	188	0	95	35	0	209	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1728	1295	0	1728	0	0
Q Serve Time (g_s), s	5.3	0.0	2.7	2.6	0.0	4.6	0.0	0.0
Cycle Q Clear Time (g_c), s	5.3	0.0	2.7	2.6	0.0	4.6	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1295	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	257	0	160	137	0	984	0	0
V/C Ratio (X)	0.73	0.00	0.59	0.26	0.00	0.21	0.00	0.00
Avail Cap (c_a), veh/h	536	0	484	194	0	984	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	45.3	0.0	46.8	46.4	0.0	27.2	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.0	3.5	0.4	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	46.8	0.0	50.2	46.7	0.0	27.3	0.0	0.0
1st-Term Q (Q1), veh/ln	2.2	0.0	1.2	0.8	0.0	1.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	2.2	0.0	1.2	0.9	0.0	1.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.13	0.00	0.14	0.14	0.00	0.17	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	2	3	0	0	1
Grp Vol (v), veh/h	0	642	0	97	928	0	0	100
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	1702	0	0	1870
Q Serve Time (g_s), s	0.0	9.8	0.0	2.7	14.7	0.0	0.0	4.8
Cycle Q Clear Time (g_c), s	0.0	9.8	0.0	2.7	14.7	0.0	0.0	4.8
Lane Grp Cap (c), veh/h	0	1973	0	177	1721	0	0	292
V/C Ratio (X)	0.00	0.33	0.00	0.55	0.54	0.00	0.00	0.34
Avail Cap (c_a), veh/h	0	1973	0	334	1721	0	0	550
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.1	0.0	46.4	26.9	0.0	0.0	37.6
Incr Delay (d2), s/veh	0.0	0.4	0.0	1.0	1.2	0.0	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	12.5	0.0	47.4	28.1	0.0	0.0	37.9
1st-Term Q (Q1), veh/ln	0.0	3.4	0.0	1.2	5.5	0.0	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.5	0.0	1.2	5.7	0.0	0.0	2.2
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.05	0.12	0.00	0.00	0.25
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	65	0	0	4	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	1.9	0.0	0.0	0.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.9	0.0	0.0	0.2	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	880	0	79	534	0	0	248
V/C Ratio (X)	0.00	0.07	0.00	0.00	0.01	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	880	0	149	534	0	0	466
Upstream Filter (I)	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.3	0.0	0.0	22.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.5	0.0	0.0	22.1	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.0	0.1	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	0.0	0.1	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	722	222	373	288	10	350	57	150	28	135	108
Future Volume (veh/h)	63	722	222	373	288	10	350	57	150	28	135	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	785	241	405	313	11	380	62	163	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	2125	660	469	1747	779	445	568	253	98	218	
Arrive On Green	0.04	0.42	0.42	0.14	0.49	0.49	0.13	0.16	0.16	0.03	0.06	0.00
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	68	785	241	405	313	11	380	62	163	30	147	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.9	10.6	10.5	11.5	4.9	0.4	10.8	1.5	9.6	0.9	4.1	0.0
Cycle Q Clear(g_c), s	1.9	10.6	10.5	11.5	4.9	0.4	10.8	1.5	9.6	0.9	4.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	147	2125	660	469	1747	779	445	568	253	98	218	
V/C Ratio(X)	0.46	0.37	0.37	0.86	0.18	0.01	0.85	0.11	0.64	0.31	0.67	
Avail Cap(c_a), veh/h	425	2125	660	695	1747	779	650	568	253	470	316	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.8	20.1	20.1	42.3	14.2	13.0	42.6	35.9	39.3	47.6	46.0	0.0
Incr Delay (d2), s/veh	0.8	0.5	1.6	5.2	0.2	0.0	5.2	0.0	4.3	0.7	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.9	4.1	5.0	1.8	0.1	4.9	0.6	4.0	0.4	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	20.6	21.7	47.5	14.4	13.1	47.8	36.0	43.7	48.3	47.3	0.0
LnGrp LOS	D	C	C	D	B	B	D	D	D	D	D	
Approach Vol, veh/h		1094			729			605			177	A
Approach Delay, s/veh		22.5			32.8			45.5			47.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	55.8	9.2	23.1	19.5	48.2	19.1	13.2
Change Period (Y+Rc), s	* 7.7	6.6	6.4	* 7.1	5.9	* 6.6	* 6.2	7.1
Max Green Setting (Gmax), s	* 12	32.4	13.6	* 15	20.1	* 27	* 19	8.9
Max Q Clear Time (g_c+I1), s	3.9	6.9	2.9	11.6	13.5	12.6	12.8	6.1
Green Ext Time (p_c), s	0.0	1.0	0.0	0.1	0.1	2.8	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	722	222	373	288	10	350	57	150	28	135	108
Future Volume (veh/h)	63	722	222	373	288	10	350	57	150	28	135	108
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	785	241	405	313	11	380	62	163	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	147	2125	660	469	1747	779	445	568	253	98	218	
HCM 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
Prop Arrive On Green	0.04	0.42	0.42	0.14	0.49	0.49	0.13	0.16	0.16	0.03	0.06	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	47.6	20.6	21.7	47.5	14.4	13.1	47.8	36.0	43.7	48.3	47.3	0.0
Ln Grp LOS	D	C	C	D	B	B	D	D	D	D	D	
Approach Vol, veh/h		1094			729			605			177	
Approach Delay, s/veh		22.5			32.8			45.5			47.5	
Approach LOS		C			C			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	11.9	55.8	9.2	23.1	19.5	48.2	19.1	13.2
Change Period (Y+Rc), s	* 7.7	6.6	6.4	* 7.1	5.9	* 6.6	* 6.2	7.1
Max Green (Gmax), s	* 12	32.4	13.6	* 15	20.1	* 27	* 19	8.9
Max Allow Headway (MAH), s	1.3	3.6	1.6	2.6	1.3	3.4	1.4	3.1
Max Q Clear (g_c+I1), s	3.9	6.9	2.9	11.6	13.5	12.6	12.8	6.1
Green Ext Time (g_e), s	0.0	1.0	0.0	0.1	0.1	2.8	0.1	0.1
Prob of Phs Call (p_c)	0.85	1.00	0.57	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	0.42	0.00	0.00	0.00	1.00

Left-Turn Movement Data				
Assigned Mvmt	1	3	5	7
Mvmt Sat Flow, veh/h	3456	3456	3456	3456

Through Movement Data				
Assigned Mvmt	2	4	6	8
Mvmt Sat Flow, veh/h	3554	3554	5106	3554

Right-Turn Movement Data				
Assigned Mvmt	12	14	16	18
Mvmt Sat Flow, veh/h	1585	1585	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	2	0	2	0	2	0	2	0
Grp Vol (v), veh/h	68	0	30	0	405	0	380	0
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	1.9	0.0	0.9	0.0	11.5	0.0	10.8	0.0
Cycle Q Clear Time (g_c), s	1.9	0.0	0.9	0.0	11.5	0.0	10.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	147	0	98	0	469	0	445	0
V/C Ratio (X)	0.46	0.00	0.31	0.00	0.86	0.00	0.85	0.00
Avail Cap (c_a), veh/h	425	0	470	0	695	0	650	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	46.8	0.0	47.6	0.0	42.3	0.0	42.6	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.7	0.0	5.2	0.0	5.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	47.6	0.0	48.3	0.0	47.5	0.0	47.8	0.0
1st-Term Q (Q1), veh/ln	0.8	0.0	0.4	0.0	4.6	0.0	4.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.8	0.0	0.4	0.0	5.0	0.0	4.9	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.04	0.00	0.56	0.00	0.48	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	3	0	2
Grp Vol (v), veh/h	0	313	0	62	0	785	0	147
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1702	0	1777
Q Serve Time (g_s), s	0.0	4.9	0.0	1.5	0.0	10.6	0.0	4.1
Cycle Q Clear Time (g_c), s	0.0	4.9	0.0	1.5	0.0	10.6	0.0	4.1
Lane Grp Cap (c), veh/h	0	1747	0	568	0	2125	0	218
V/C Ratio (X)	0.00	0.18	0.00	0.11	0.00	0.37	0.00	0.67
Avail Cap (c_a), veh/h	0	1747	0	568	0	2125	0	316
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.2	0.0	35.9	0.0	20.1	0.0	46.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.5	0.0	1.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.4	0.0	36.0	0.0	20.6	0.0	47.3
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	0.6	0.0	3.8	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	0.6	0.0	3.9	0.0	1.8
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.03	0.00	0.21	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	11	0	163	0	241	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.4	0.0	9.6	0.0	10.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	9.6	0.0	10.5	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	779	0	253	0	660	0	97
V/C Ratio (X)	0.00	0.01	0.00	0.64	0.00	0.37	0.00	0.00
Avail Cap (c_a), veh/h	0	779	0	253	0	660	0	141
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.0	0.0	39.3	0.0	20.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.3	0.0	1.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.1	0.0	43.7	0.0	21.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	3.7	0.0	3.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	4.0	0.0	4.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.39	0.00	0.46	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	765	254	136	508	319	149
Future Volume (veh/h)	765	254	136	508	319	149
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	832	276	148	552	347	162
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2143	956	214	2626	429	197
Arrive On Green	0.60	0.60	0.06	0.74	0.12	0.12
Sat Flow, veh/h	3647	1585	3456	3647	3456	1585
Grp Volume(v), veh/h	832	276	148	552	347	162
Grp Sat Flow(s),veh/h/ln	1777	1585	1728	1777	1728	1585
Q Serve(g_s), s	12.1	8.4	4.2	4.8	9.8	10.0
Cycle Q Clear(g_c), s	12.1	8.4	4.2	4.8	9.8	10.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2143	956	214	2626	429	197
V/C Ratio(X)	0.39	0.29	0.69	0.21	0.81	0.82
Avail Cap(c_a), veh/h	2143	956	505	2626	736	338
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	9.5	46.0	4.0	42.6	42.7
Incr Delay (d2), s/veh	0.5	0.8	1.5	0.2	1.4	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	2.6	1.8	1.2	4.3	8.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.8	10.3	47.5	4.2	44.0	46.0
LnGrp LOS	B	B	D	A	D	D
Approach Vol, veh/h	1108			700	509	
Approach Delay, s/veh	10.7			13.4	44.7	
Approach LOS	B			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		80.9		19.1	13.6	67.3
Change Period (Y+Rc), s		7.0		* 6.7	* 7.4	7.0
Max Green Setting (Gmax), s		65.0		* 21	* 15	43.0
Max Q Clear Time (g_c+I1), s		6.8		12.0	6.2	14.1
Green Ext Time (p_c), s		2.0		0.4	0.1	3.7

Intersection Summary	
HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	765	254	136	508	319	149
Future Volume (veh/h)	765	254	136	508	319	149
Number	6	16	5	2	7	14
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	832	276	148	552	347	162
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence			Yes		Yes	
Cap, veh/h	2143	956	214	2626	429	197
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.60	0.60	0.06	0.74	0.12	0.12
Unsig. Movement Delay						
Ln Grp Delay, s/veh	10.8	10.3	47.5	4.2	44.0	46.0
Ln Grp LOS	B	B	D	A	D	D
Approach Vol, veh/h	1108			700	509	
Approach Delay, s/veh	10.7			13.4	44.7	
Approach LOS	B			B	D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Case No		4.0		9.0	2.0	7.0		
Phs Duration (G+Y+Rc), s		80.9		19.1	13.6	67.3		
Change Period (Y+Rc), s		7.0		* 6.7	* 7.4	7.0		
Max Green (Gmax), s		65.0		* 21	* 15	43.0		
Max Allow Headway (MAH), s		3.7		2.2	2.2	3.5		
Max Q Clear (g_c+I1), s		6.8		12.0	6.2	14.1		
Green Ext Time (g_e), s		2.0		0.4	0.1	3.7		
Prob of Phs Call (p_c)		1.00		1.00	0.98	1.00		
Prob of Max Out (p_x)		0.00		0.00	0.00	0.00		
Left-Turn Movement Data								
Assigned Mvmt				7	5	1		
Mvmt Sat Flow, veh/h				3456	3456	0		
Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		3647		0		3647		
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		0		1585		1585		
Left Lane Group Data								
Assigned Mvmt	0	0	0	7	5	1	0	0
Lane Assignment				L	L (Prot)			

Lanes in Grp	0	0	0	2	2	0	0	0
Grp Vol (v), veh/h	0	0	0	347	148	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1728	1728	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	9.8	4.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	9.8	4.2	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1728	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	60.3	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	429	214	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.81	0.69	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	736	505	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	42.6	46.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.4	1.5	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	44.0	47.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	4.2	1.7	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	4.3	1.8	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.42	0.18	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	552	0	0	0	832	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	4.8	0.0	0.0	0.0	12.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.8	0.0	0.0	0.0	12.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	2626	0	0	0	2143	0	0
V/C Ratio (X)	0.00	0.21	0.00	0.00	0.00	0.39	0.00	0.00
Avail Cap (c_a), veh/h	0	2626	0	0	0	2143	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.0	0.0	0.0	0.0	10.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.2	0.0	0.0	0.0	10.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	0.0	0.0	3.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	0.0	0.0	4.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.10	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	162	0	276	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1585	0	1585	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	10.0	0.0	8.4	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	10.0	0.0	8.4	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	197	0	956	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.82	0.00	0.29	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	338	0	956	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	42.7	0.0	9.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.3	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	46.0	0.0	10.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	8.4	0.0	2.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	8.6	0.0	2.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.85	0.00	0.13	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	72	0	776	51	89	70
Future Volume (veh/h)	72	0	776	51	89	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	0	843	55	97	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	529	0	2494	1112	132	117
Arrive On Green	0.04	0.00	0.70	0.70	0.07	0.07
Sat Flow, veh/h	1781	78	3647	1585	1781	1585
Grp Volume(v), veh/h	78	3.9	843	55	97	76
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	1.2		9.3	1.1	5.3	4.7
Cycle Q Clear(g_c), s	1.2		9.3	1.1	5.3	4.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	529		2494	1112	132	117
V/C Ratio(X)	0.15		0.34	0.05	0.74	0.65
Avail Cap(c_a), veh/h	681		2494	1112	321	285
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.9		5.8	4.6	45.4	45.0
Incr Delay (d2), s/veh	0.0		0.4	0.1	3.0	2.2
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3		2.6	0.3	2.5	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.9		6.2	4.7	48.3	47.3
LnGrp LOS	A		A	A	D	D
Approach Vol, veh/h			898		173	
Approach Delay, s/veh			6.1		47.9	
Approach LOS			A		D	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	10.4	76.2				13.4
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	13.0	51.0				18.0
Max Q Clear Time (g_c+I1), s	11.3	11.3				7.3
Green Ext Time (p_c), s	0.0	2.6				0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	72	0	776	51	89	70
Future Volume (veh/h)	72	0	776	51	89	70
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	0	843	55	97	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	529	0	2494	1112	132	117
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.00	0.70	0.70	0.07	0.07
Unsig. Movement Delay						
Ln Grp Delay, s/veh	3.9	0.0	6.2	4.7	48.3	47.3
Ln Grp LOS	A	A	A	A	D	D
Approach Vol, veh/h		78	898		173	
Approach Delay, s/veh		3.9	6.1		47.9	
Approach LOS		A	A		D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	10.4	76.2	13.4					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	51.0	18.0					
Max Allow Headway (MAH), s	2.2	3.3	2.4					
Max Q Clear (g_c+I1), s	3.2	11.3	7.3					
Green Ext Time (g_e), s	0.0	2.6	0.1					
Prob of Phs Call (p_c)	0.89	1.00	0.99					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	78	0	97	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	1.2	0.0	5.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	1.2	0.0	5.3	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	620	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	70.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	60.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	70.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	529	0	132	0	0	0	0	0
V/C Ratio (X)	0.15	0.00	0.74	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	681	0	321	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	3.9	0.0	45.4	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	3.9	0.0	48.3	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.3	0.0	2.3	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.3	0.0	2.5	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.03	0.00	0.14	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	843	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2494	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2494	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	55	76	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	1.1	4.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.1	4.7	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1112	117	0	0	0	0	0
V/C Ratio (X)	0.00	0.05	0.65	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1112	285	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.6	45.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	2.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.7	47.3	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.3	1.8	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.3	1.9	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.07	0.11	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		12.2						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	3	35	4	0	0	4	106	12	0	119	39
Future Vol, veh/h	59	3	35	4	0	0	4	106	12	0	119	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	3	38	4	0	0	4	115	13	0	129	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	216	286	86	196	301	64	171	0	0	128	0	0
Stage 1	150	150	-	130	130	-	-	-	-	-	-	-
Stage 2	66	136	-	66	171	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	722	622	956	745	610	987	1404	-	-	1456	-	-
Stage 1	837	772	-	860	788	-	-	-	-	-	-	-
Stage 2	937	783	-	937	756	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	721	620	956	711	608	987	1404	-	-	1456	-	-
Mov Cap-2 Maneuver	721	620	-	711	608	-	-	-	-	-	-	-
Stage 1	834	772	-	857	786	-	-	-	-	-	-	-
Stage 2	934	781	-	896	756	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	10.1	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1404	-	-	721	917	711	-	1456	-	-
HCM Lane V/C Ratio	0.003	-	-	0.089	0.045	0.006	-	-	-	-
HCM Control Delay (s)	7.6	-	-	10.5	9.1	10.1	0	0	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0	-	0	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	144	21	14	0	0	144
Future Vol, veh/h	144	21	14	0	0	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	157	23	15	0	0	157

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	15	0	-	0	341	8
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	326	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1601	-	-	-	629	1072
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	704	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1601	-	-	-	567	1072
Mov Cap-2 Maneuver	-	-	-	-	567	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	704	-

Approach	EB	WB	SB
HCM Control Delay, s	6.5	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1601	-	-	-	1072
HCM Lane V/C Ratio	0.098	-	-	-	0.146
HCM Control Delay (s)	7.5	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	23	1	0	32	61	61	0	13	2
Future Vol, veh/h	0	0	11	23	1	0	32	61	61	0	13	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	25	1	0	35	66	66	0	14	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	185	217	15	190	185	99	16	0	0	132	0	0
Stage 1	15	15	-	169	169	-	-	-	-	-	-	-
Stage 2	170	202	-	21	16	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	776	681	1065	770	709	957	1602	-	-	1453	-	-
Stage 1	1005	883	-	833	759	-	-	-	-	-	-	-
Stage 2	832	734	-	998	882	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	761	665	1065	748	692	957	1602	-	-	1453	-	-
Mov Cap-2 Maneuver	761	665	-	748	692	-	-	-	-	-	-	-
Stage 1	981	883	-	813	741	-	-	-	-	-	-	-
Stage 2	811	716	-	987	882	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	10	1.5	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1602	-	-	1065	745	1453	-	-
HCM Lane V/C Ratio	0.022	-	-	0.011	0.035	-	-	-
HCM Control Delay (s)	7.3	0	-	8.4	10	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0.1	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	30	0	11	0	473	79	16	787	0
Future Volume (veh/h)	0	0	0	30	0	11	0	473	79	16	787	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	33	0	12	0	514	86	17	855	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	97	0	261	0	20	0	864	145	510	1035	0
Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.55	0.55	0.55	0.55	0.00
Sat Flow, veh/h	0	1870	0	1070	0	389	0	1562	261	819	1870	0
Grp Volume(v), veh/h	0	0	0	45	0	0	0	0	600	17	855	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1459	0	0	0	0	1823	819	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	6.7	0.4	11.4	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	6.7	7.1	11.4	0.0
Prop In Lane	0.00		0.00	0.73		0.27	0.00		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	0	97	0	281	0	0	0	0	1009	510	1035	0
V/C Ratio(X)	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.59	0.03	0.83	0.00
Avail Cap(c_a), veh/h	0	1292	0	1213	0	0	0	0	2220	1054	2277	0
HCM 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
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	14.1	0.0	0.0	0.0	0.0	4.5	6.9	5.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.8	0.0	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	14.2	0.0	0.0	0.0	0.0	4.7	6.9	6.2	0.0
LnGrp LOS	A	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			45			600			872	
Approach Delay, s/veh		0.0			14.2			4.7			6.3	
Approach LOS					B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	22.8	7.6	22.8	7.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	37.0	21.0	37.0	21.0
Max Q Clear Time (g_c+I1), s	8.7	0.0	13.4	2.9
Green Ext Time (p_c), s	2.1	0.0	3.4	0.1

Intersection Summary	
HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	30	0	11	0	473	79	16	787	0
Future Volume (veh/h)	0	0	0	30	0	11	0	473	79	16	787	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	33	0	12	0	514	86	17	855	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	0	97	0	261	0	20	0	864	145	510	1035	0
HCM 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
Prop Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.55	0.55	0.55	0.55	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	14.2	0.0	0.0	0.0	0.0	4.7	6.9	6.2	0.0
Ln Grp LOS	A	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			45			600			872	
Approach Delay, s/veh		0.0			14.2			4.7			6.3	
Approach LOS					B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		8.0		6.0		8.0
Phs Duration (G+Y+Rc), s		22.8		7.6		22.8		7.6
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		37.0		21.0		37.0		21.0
Max Allow Headway (MAH), s		3.8		0.0		3.7		3.8
Max Q Clear (g_c+I1), s		8.7		0.0		13.4		2.9
Green Ext Time (g_e), s		2.1		0.0		3.4		0.1
Prob of Phs Call (p_c)		1.00		0.00		1.00		0.32
Prob of Max Out (p_x)		0.00		0.00		0.01		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		0		0		819		1070
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1562		1870		1870		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		261		0		0		389
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment						L		L+T+R

Lanes in Grp	0	0	0	0	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	17	0	45
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	819	0	1459
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.9
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.9
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	819	0	1440
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	16.8	0.0	1.6
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	10.2	0.0	1.6
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.9
Time to First Blk (g_f), s	0.0	16.8	0.0	1.6	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.73
Lane Grp Cap (c), veh/h	0	0	0	0	0	510	0	281
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.16
Avail Cap (c_a), veh/h	0	0	0	0	0	1054	0	1213
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	6.9	0.0	14.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	6.9	0.0	14.2
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment				T		T		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	855	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1870	0	1870	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	11.4	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	11.4	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	97	0	1035	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.83	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	1292	0	2277	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R						
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	600	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1823	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.27
Lane Grp Cap (c), veh/h	0	1009	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2220	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		5.9						
HCM 6th LOS		A						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	207	0	131	0	421	258	276	541	0
Future Volume (veh/h)	0	0	0	207	0	131	0	421	258	276	541	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	225	0	142	0	458	280	300	588	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	321	0	459	0	272	153	623	381	342	1073	0
Arrive On Green	0.00	0.00	0.00	0.17	0.00	0.17	0.00	0.57	0.57	0.57	0.57	0.00
Sat Flow, veh/h	1246	1870	0	1781	0	1585	828	1087	664	720	1870	0
Grp Volume(v), veh/h	0	0	0	225	0	142	0	0	738	300	588	0
Grp Sat Flow(s),veh/h/ln	1246	1870	0	1781	0	1585	828	0	1751	720	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	5.6	0.0	3.8	0.0	0.0	14.6	12.4	9.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	5.6	0.0	3.8	0.0	0.0	14.6	27.0	9.2	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.38	1.00		0.00
Lane Grp Cap(c), veh/h	153	321	0	459	0	272	153	0	1004	342	1073	0
V/C Ratio(X)	0.00	0.00	0.00	0.49	0.00	0.52	0.00	0.00	0.74	0.88	0.55	0.00
Avail Cap(c_a), veh/h	495	834	0	947	0	707	153	0	1004	342	1073	0
HCM 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
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	18.5	0.0	17.7	0.0	0.0	7.4	19.6	6.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	0.6	0.0	0.0	2.5	21.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.1	0.0	1.3	0.0	0.0	4.1	5.0	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	18.8	0.0	18.3	0.0	0.0	9.9	40.7	6.6	0.0
LnGrp LOS	A	A	A	B	A	B	A	A	A	D	A	A
Approach Vol, veh/h		0			367			738			888	
Approach Delay, s/veh		0.0			18.6			9.9			18.1	
Approach LOS					B			A			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	33.0	14.1	33.0	14.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	27.0	21.0	27.0	21.0
Max Q Clear Time (g_c+I1), s	16.6	0.0	29.0	7.6
Green Ext Time (p_c), s	2.2	0.0	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	207	0	131	0	421	258	276	541	0
Future Volume (veh/h)	0	0	0	207	0	131	0	421	258	276	541	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	225	0	142	0	458	280	300	588	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	153	321	0	459	0	272	153	623	381	342	1073	0
HCM 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
Prop Arrive On Green	0.00	0.00	0.00	0.17	0.00	0.17	0.00	0.57	0.57	0.57	0.57	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	18.8	0.0	18.3	0.0	0.0	9.9	40.7	6.6	0.0
Ln Grp LOS	A	A	A	B	A	B	A	A	A	D	A	A
Approach Vol, veh/h		0			367			738			888	
Approach Delay, s/veh		0.0			18.6			9.9			18.1	
Approach LOS					B			A			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		6.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		33.0		14.1		33.0		14.1
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		27.0		21.0		27.0		21.0
Max Allow Headway (MAH), s		3.9		0.0		4.1		2.9
Max Q Clear (g_c+I1), s		16.6		0.0		29.0		7.6
Green Ext Time (g_e), s		2.2		0.0		0.0		0.5
Prob of Phs Call (p_c)		1.00		0.00		1.00		0.99
Prob of Max Out (p_x)		0.16		0.00		1.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		828		1246		720		1781
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1087		1870		1870		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		664		0		0		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	300	0	225
Grp Sat Flow (s), veh/h/ln	0	828	0	1246	0	720	0	1781
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	12.4	0.0	5.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	27.0	0.0	5.6
Perm LT Sat Flow (s_l), veh/h/ln	0	828	0	1246	0	720	0	1781
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	27.0	0.0	8.1
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	12.4	0.0	8.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	12.4	0.0	5.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	153	0	153	0	342	0	459
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.49
Avail Cap (c_a), veh/h	0	153	0	495	0	342	0	947
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	19.6	0.0	18.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	21.0	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	40.7	0.0	18.8
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	3.1	0.0	2.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	5.0	0.0	2.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	1.28	0.00	0.53
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment				T		T		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	588	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1870	0	1870	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	321	0	1073	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	834	0	1073	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R						T+R
Lanes in Grp	0	1	0	0	0	0	0	1
Grp Vol (v), veh/h	0	738	0	0	0	0	0	142
Grp Sat Flow (s), veh/h/ln	0	1751	0	0	0	0	0	1585
Q Serve Time (g_s), s	0.0	14.6	0.0	0.0	0.0	0.0	0.0	3.8
Cycle Q Clear Time (g_c), s	0.0	14.6	0.0	0.0	0.0	0.0	0.0	3.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.38	0.00	0.00	0.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1004	0	0	0	0	0	272
V/C Ratio (X)	0.00	0.74	0.00	0.00	0.00	0.00	0.00	0.52
Avail Cap (c_a), veh/h	0	1004	0	0	0	0	0	707
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.4	0.0	0.0	0.0	0.0	0.0	17.7
Incr Delay (d2), s/veh	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.9	0.0	0.0	0.0	0.0	0.0	18.3
1st-Term Q (Q1), veh/ln	0.0	3.4	0.0	0.0	0.0	0.0	0.0	1.2
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.1	0.0	0.0	0.0	0.0	0.0	1.3
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		15.2						
HCM 6th LOS		B						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	1873	15	237	577	96	86	243	258	232	211	250
Future Volume (veh/h)	340	1873	15	237	577	96	86	243	258	232	211	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	370	2036	16	258	627	104	93	264	0	252	229	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	429	2200	683	505	1633	728	172	347		313	445	
Arrive On Green	0.12	0.43	0.43	0.15	0.46	0.46	0.10	0.10	0.00	0.09	0.24	0.00
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	1152	3554	1585	3456	1870	1585
Grp Volume(v), veh/h	370	2036	16	258	627	104	93	264	0	252	229	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1152	1777	1585	1728	1870	1585
Q Serve(g_s), s	12.6	45.3	0.7	8.3	13.9	4.6	9.5	8.7	0.0	8.6	12.8	0.0
Cycle Q Clear(g_c), s	12.6	45.3	0.7	8.3	13.9	4.6	9.5	8.7	0.0	8.6	12.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	429	2200	683	505	1633	728	172	347		313	445	
V/C Ratio(X)	0.86	0.93	0.02	0.51	0.38	0.14	0.54	0.76		0.81	0.51	
Avail Cap(c_a), veh/h	562	2200	683	505	1633	728	189	397		403	521	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.5	32.3	19.6	47.3	21.3	18.8	53.2	52.8	0.0	53.5	39.7	0.0
Incr Delay (d2), s/veh	8.6	8.2	0.1	0.4	0.7	0.4	1.0	6.0	0.0	8.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	18.8	0.3	3.5	5.6	1.8	2.8	4.2	0.0	4.1	5.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	40.5	19.7	47.6	22.0	19.2	54.1	58.8	0.0	62.5	40.0	0.0
LnGrp LOS	E	D	B	D	C	B	D	E		E	D	
Approach Vol, veh/h		2422			989			357	A		481	A
Approach Delay, s/veh		43.4			28.4			57.6			51.8	
Approach LOS		D			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	31.4	62.4	16.9	19.3	24.8	59.0		36.2
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 28	* 46	14.0	13.4	* 14	* 52		33.4
Max Q Clear Time (g_c+I1), s	14.6	15.9	10.6	11.5	10.3	47.3		14.8
Green Ext Time (p_c), s	0.3	2.3	0.3	0.2	0.0	3.2		0.5

Intersection Summary	
HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	1873	15	237	577	96	86	243	258	232	211	250
Future Volume (veh/h)	340	1873	15	237	577	96	86	243	258	232	211	250
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	370	2036	16	258	627	104	93	264	0	252	229	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	429	2200	683	505	1633	728	172	347		313	445	
HCM 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
Prop Arrive On Green	0.12	0.43	0.43	0.15	0.46	0.46	0.10	0.10	0.00	0.09	0.24	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	60.2	40.5	19.7	47.6	22.0	19.2	54.1	58.8	0.0	62.5	40.0	0.0
Ln Grp LOS	E	D	B	D	C	B	D	E		E	D	
Approach Vol, veh/h		2422			989			357			481	
Approach Delay, s/veh		43.4			28.4			57.6			51.8	
Approach LOS		D			C			E			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	6	5		8
Case No	2.0	3.0	2.0	5.3	3.0	2.0		3.0
Phs Duration (G+Y+Rc), s	21.4	62.4	16.9	19.3	59.0	24.8		36.2
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 20	* 46	14.0	13.4	* 52	* 14		33.4
Max Allow Headway (MAH), s	2.5	3.5	3.8	3.2	3.6	1.3		3.4
Max Q Clear (g_c+I1), s	14.6	15.9	10.6	11.5	47.3	10.3		14.8
Green Ext Time (g_e), s	0.3	2.3	0.3	0.2	3.2	0.0		0.5
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.06	0.00	1.00	1.00	0.00	0.00		0.00

Left-Turn Movement Data						
Assigned Mvmt	1		3	7		5
Mvmt Sat Flow, veh/h	3456		3456	1152		3456

Through Movement Data								
Assigned Mvmt			2		4	6		8
Mvmt Sat Flow, veh/h			3554		3554	5106		1870

Right-Turn Movement Data								
Assigned Mvmt			12		14	16		18
Mvmt Sat Flow, veh/h			1585		1585	1585		1585

Left Lane Group Data									
Assigned Mvmt		1	0	3	7	0	5	0	0
Lane Assignment		L (Prot)		L (Prot)	L		L (Prot)		

Lanes in Grp	2	0	2	1	0	2	0	0
Grp Vol (v), veh/h	370	0	252	93	0	258	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1728	1152	0	1728	0	0
Q Serve Time (g_s), s	12.6	0.0	8.6	9.5	0.0	8.3	0.0	0.0
Cycle Q Clear Time (g_c), s	12.6	0.0	8.6	9.5	0.0	8.3	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1152	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	11.7	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	11.7	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	9.5	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	429	0	313	172	0	505	0	0
V/C Ratio (X)	0.86	0.00	0.81	0.54	0.00	0.51	0.00	0.00
Avail Cap (c_a), veh/h	562	0	403	189	0	505	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	51.5	0.0	53.5	53.2	0.0	47.3	0.0	0.0
Incr Delay (d2), s/veh	8.6	0.0	8.9	1.0	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	60.2	0.0	62.5	54.1	0.0	47.6	0.0	0.0
1st-Term Q (Q1), veh/ln	5.3	0.0	3.7	2.8	0.0	3.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.5	0.0	0.4	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	5.8	0.0	4.1	2.8	0.0	3.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.34	0.00	0.48	0.44	0.00	0.33	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	2	3	0	0	1
Grp Vol (v), veh/h	0	627	0	264	2036	0	0	229
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	1702	0	0	1870
Q Serve Time (g_s), s	0.0	13.9	0.0	8.7	45.3	0.0	0.0	12.8
Cycle Q Clear Time (g_c), s	0.0	13.9	0.0	8.7	45.3	0.0	0.0	12.8
Lane Grp Cap (c), veh/h	0	1633	0	347	2200	0	0	445
V/C Ratio (X)	0.00	0.38	0.00	0.76	0.93	0.00	0.00	0.51
Avail Cap (c_a), veh/h	0	1633	0	397	2200	0	0	521
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.3	0.0	52.8	32.3	0.0	0.0	39.7
Incr Delay (d2), s/veh	0.0	0.7	0.0	6.0	8.2	0.0	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.0	0.0	58.8	40.5	0.0	0.0	40.0
1st-Term Q (Q1), veh/ln	0.0	5.4	0.0	3.9	17.1	0.0	0.0	5.9
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.3	1.7	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.6	0.0	4.2	18.8	0.0	0.0	5.9
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.17	0.39	0.00	0.00	0.69
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	104	0	0	16	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	4.6	0.0	0.0	0.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.6	0.0	0.0	0.7	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	728	0	155	683	0	0	377
V/C Ratio (X)	0.00	0.14	0.00	0.00	0.02	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	728	0	177	683	0	0	441
Upstream Filter (I)	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	18.8	0.0	0.0	19.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.2	0.0	0.0	19.7	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	0.0	0.2	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	0.0	0.3	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.17	0.00	0.00	0.01	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1858	356	274	637	2	298	15	195	175	255	682
Future Volume (veh/h)	22	1858	356	274	637	2	298	15	195	175	255	682
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	2020	387	298	692	2	324	16	212	190	277	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	394	2407	747	351	1611	719	377	282	126	429	333	
Arrive On Green	0.11	0.47	0.47	0.10	0.45	0.45	0.11	0.08	0.08	0.12	0.09	0.00
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	24	2020	387	298	692	2	324	16	212	190	277	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.7	41.5	20.5	10.2	15.9	0.1	11.1	0.5	7.4	6.1	9.2	0.0
Cycle Q Clear(g_c), s	0.7	41.5	20.5	10.2	15.9	0.1	11.1	0.5	7.4	6.1	9.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	394	2407	747	351	1611	719	377	282	126	429	333	
V/C Ratio(X)	0.06	0.84	0.52	0.85	0.43	0.00	0.86	0.06	1.69	0.44	0.83	
Avail Cap(c_a), veh/h	394	2407	747	406	1611	719	397	382	170	429	352	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.4	27.7	22.2	53.0	22.3	18.0	52.6	51.1	33.7	48.7	53.4	0.0
Incr Delay (d2), s/veh	0.0	3.7	2.6	12.4	0.8	0.0	15.6	0.0	340.2	0.3	13.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	16.2	8.1	4.9	6.4	0.0	5.6	0.2	14.8	2.7	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	31.4	24.7	65.3	23.1	18.0	68.1	51.1	373.8	49.0	67.1	0.0
LnGrp LOS	D	C	C	E	C	B	E	D	F	D	E	
Approach Vol, veh/h		2431			992			552			467	A
Approach Delay, s/veh		30.5			35.8			185.0			59.7	
Approach LOS		C			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.4	61.0	22.0	15.6	18.1	64.3	19.3	18.3
Change Period (Y+Rc), s	7.7	* 6.6	7.1	* 6.1	5.9	* 7.7	* 6.2	7.1
Max Green Setting (Gmax), s	12.3	* 54	13.6	* 13	14.1	* 55	* 14	11.9
Max Q Clear Time (g_c+I1), s	12.7	17.9	8.1	9.4	12.2	43.5	13.1	11.2
Green Ext Time (p_c), s	0.0	2.5	0.1	0.1	0.0	6.9	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	54.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1858	356	274	637	2	298	15	195	175	255	682
Future Volume (veh/h)	22	1858	356	274	637	2	298	15	195	175	255	682
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	2020	387	298	692	2	324	16	212	190	277	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	394	2407	747	351	1611	719	377	282	126	429	333	
HCM 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
Prop Arrive On Green	0.11	0.47	0.47	0.10	0.45	0.45	0.11	0.08	0.08	0.12	0.09	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	47.5	31.4	24.7	65.3	23.1	18.0	68.1	51.1	373.8	49.0	67.1	0.0
Ln Grp LOS	D	C	C	E	C	B	E	D	F	D	E	
Approach Vol, veh/h		2431			992			552			467	
Approach Delay, s/veh		30.5			35.8			185.0			59.7	
Approach LOS		C			D			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	4	3	5	6	7	8
Case No	3.0	2.0	3.0	2.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	61.0	21.4	15.6	22.0	18.1	64.3	19.3	18.3
Change Period (Y+Rc), s	* 6.6	7.7	* 6.1	7.1	5.9	* 7.7	* 6.2	7.1
Max Green (Gmax), s	* 54	12.3	* 13	13.6	14.1	* 55	* 14	11.9
Max Allow Headway (MAH), s	3.6	1.3	2.3	1.6	1.3	3.5	1.4	3.1
Max Q Clear (g_c+I1), s	17.9	2.7	9.4	8.1	12.2	43.5	13.1	11.2
Green Ext Time (g_e), s	2.5	0.0	0.1	0.1	0.0	6.9	0.0	0.1
Prob of Phs Call (p_c)	1.00	0.55	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.22	0.00	0.13	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt		1		3	5		7	
Mvmt Sat Flow, veh/h		3456		3456	3456		3456	

Through Movement Data								
Assigned Mvmt	2		4			6		8
Mvmt Sat Flow, veh/h	3554		3554			5106		3554

Right-Turn Movement Data								
Assigned Mvmt	12		14			16		18
Mvmt Sat Flow, veh/h	1585		1585			1585		1585

Left Lane Group Data								
Assigned Mvmt	0	1	0	3	5	0	7	0
Lane Assignment		L (Prot)		L (Prot)	L (Prot)		L (Prot)	

Lanes in Grp	0	2	0	2	2	0	2	0
Grp Vol (v), veh/h	0	24	0	190	298	0	324	0
Grp Sat Flow (s), veh/h/ln	0	1728	0	1728	1728	0	1728	0
Q Serve Time (g_s), s	0.0	0.7	0.0	6.1	10.2	0.0	11.1	0.0
Cycle Q Clear Time (g_c), s	0.0	0.7	0.0	6.1	10.2	0.0	11.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	394	0	429	351	0	377	0
V/C Ratio (X)	0.00	0.06	0.00	0.44	0.85	0.00	0.86	0.00
Avail Cap (c_a), veh/h	0	394	0	429	406	0	397	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	47.4	0.0	48.7	53.0	0.0	52.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	12.4	0.0	15.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	47.5	0.0	49.0	65.3	0.0	68.1	0.0
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	2.6	4.3	0.0	4.8	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.6	0.0	0.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	2.7	4.9	0.0	5.6	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.29	0.55	0.00	0.55	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	4	0	0	6	0	8
Lane Assignment	T		T			T		T
Lanes in Grp	2	0	2	0	0	3	0	2
Grp Vol (v), veh/h	692	0	16	0	0	2020	0	277
Grp Sat Flow (s), veh/h/ln	1777	0	1777	0	0	1702	0	1777
Q Serve Time (g_s), s	15.9	0.0	0.5	0.0	0.0	41.5	0.0	9.2
Cycle Q Clear Time (g_c), s	15.9	0.0	0.5	0.0	0.0	41.5	0.0	9.2
Lane Grp Cap (c), veh/h	1611	0	282	0	0	2407	0	333
V/C Ratio (X)	0.43	0.00	0.06	0.00	0.00	0.84	0.00	0.83
Avail Cap (c_a), veh/h	1611	0	382	0	0	2407	0	352
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	22.3	0.0	51.1	0.0	0.0	27.7	0.0	53.4
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	3.7	0.0	13.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	23.1	0.0	51.1	0.0	0.0	31.4	0.0	67.1
1st-Term Q (Q1), veh/ln	6.2	0.0	0.2	0.0	0.0	15.4	0.0	4.1
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.0	0.0	0.0	0.8	0.0	0.6

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	6.4	0.0	0.2	0.0	0.0	16.2	0.0	4.7
%ile Storage Ratio (RQ%)	0.15	0.00	0.01	0.00	0.00	0.84	0.00	0.15
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	12	0	14	0	0	16	0	18
Lane Assignment	R		R			R		R
Lanes in Grp	1	0	1	0	0	1	0	1
Grp Vol (v), veh/h	2	0	212	0	0	387	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	1585	0	0	1585	0	1585
Q Serve Time (g_s), s	0.1	0.0	7.4	0.0	0.0	20.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.1	0.0	7.4	0.0	0.0	20.5	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	719	0	126	0	0	747	0	149
V/C Ratio (X)	0.00	0.00	1.69	0.00	0.00	0.52	0.00	0.00
Avail Cap (c_a), veh/h	719	0	170	0	0	747	0	157
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	18.0	0.0	33.7	0.0	0.0	22.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	340.2	0.0	0.0	2.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	18.0	0.0	373.8	0.0	0.0	24.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	2.9	0.0	0.0	7.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	11.9	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	14.8	0.0	0.0	8.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	1.44	0.00	0.00	0.91	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	21.5	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1100	171	161	660	467	284
Future Volume (veh/h)	1100	171	161	660	467	284
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1196	186	175	717	508	309
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1942	866	231	2399	729	334
Arrive On Green	0.55	0.55	0.07	0.68	0.21	0.21
Sat Flow, veh/h	3647	1585	3456	3647	3456	1585
Grp Volume(v), veh/h	1196	186	175	717	508	309
Grp Sat Flow(s),veh/h/ln	1777	1585	1728	1777	1728	1585
Q Serve(g_s), s	27.6	7.2	6.0	9.9	16.3	22.9
Cycle Q Clear(g_c), s	27.6	7.2	6.0	9.9	16.3	22.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1942	866	231	2399	729	334
V/C Ratio(X)	0.62	0.21	0.76	0.30	0.70	0.92
Avail Cap(c_a), veh/h	1942	866	363	2399	786	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	14.0	55.0	7.9	43.8	46.4
Incr Delay (d2), s/veh	1.5	0.6	1.9	0.3	2.0	27.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	2.5	2.6	3.3	7.2	20.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.1	14.5	56.9	8.3	45.8	73.5
LnGrp LOS	C	B	E	A	D	E
Approach Vol, veh/h	1382			892	817	
Approach Delay, s/veh	19.3			17.8	56.3	
Approach LOS	B			B	E	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		88.0		32.0	15.4	72.6
Change Period (Y+Rc), s		7.0		* 6.7	* 7.4	7.0
Max Green Setting (Gmax), s		79.0		* 27	* 13	59.0
Max Q Clear Time (g_c+I1), s		11.9		24.9	8.0	29.6
Green Ext Time (p_c), s		2.8		0.4	0.1	5.6

Intersection Summary	
HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1100	171	161	660	467	284
Future Volume (veh/h)	1100	171	161	660	467	284
Number	6	16	5	2	7	14
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1196	186	175	717	508	309
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence			Yes		Yes	
Cap, veh/h	1942	866	231	2399	729	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.55	0.55	0.07	0.68	0.21	0.21
Unsig. Movement Delay						
Ln Grp Delay, s/veh	20.1	14.5	56.9	8.3	45.8	73.5
Ln Grp LOS	C	B	E	A	D	E
Approach Vol, veh/h	1382			892	817	
Approach Delay, s/veh	19.3			17.8	56.3	
Approach LOS	B			B	E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Case No		4.0		9.0	2.0	7.0		
Phs Duration (G+Y+Rc), s		88.0		32.0	15.4	72.6		
Change Period (Y+Rc), s		7.0		* 6.7	* 7.4	7.0		
Max Green (Gmax), s		79.0		* 27	* 13	59.0		
Max Allow Headway (MAH), s		3.7		2.2	2.2	3.6		
Max Q Clear (g_c+I1), s		11.9		24.9	8.0	29.6		
Green Ext Time (g_e), s		2.8		0.4	0.1	5.6		
Prob of Phs Call (p_c)		1.00		1.00	1.00	1.00		
Prob of Max Out (p_x)		0.00		0.91	0.01	0.00		
Left-Turn Movement Data								
Assigned Mvmt				7	5	1		
Mvmt Sat Flow, veh/h				3456	3456	0		
Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		3647		0		3647		
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		0		1585		1585		
Left Lane Group Data								
Assigned Mvmt	0	0	0	7	5	1	0	0
Lane Assignment				L	L (Prot)			

Lanes in Grp	0	0	0	2	2	0	0	0
Grp Vol (v), veh/h	0	0	0	508	175	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1728	1728	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	16.3	6.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	16.3	6.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1728	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	65.6	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	729	231	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.70	0.76	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	786	363	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	43.8	55.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.0	1.9	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	45.8	56.9	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.0	2.5	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	7.2	2.6	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.71	0.27	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	717	0	0	0	1196	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	9.9	0.0	0.0	0.0	27.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.9	0.0	0.0	0.0	27.6	0.0	0.0
Lane Grp Cap (c), veh/h	0	2399	0	0	0	1942	0	0
V/C Ratio (X)	0.00	0.30	0.00	0.00	0.00	0.62	0.00	0.00
Avail Cap (c_a), veh/h	0	2399	0	0	0	1942	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.9	0.0	0.0	0.0	18.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	1.5	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.3	0.0	0.0	0.0	20.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.2	0.0	0.0	0.0	10.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.4	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.3	0.0	0.0	0.0	10.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.00	0.00	0.25	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment				R		R		
Lanes in Grp	0	0	0	1	0	1	0	0
Grp Vol (v), veh/h	0	0	0	309	0	186	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1585	0	1585	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	22.9	0.0	7.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	22.9	0.0	7.2	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	334	0	866	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.92	0.00	0.21	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	361	0	866	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	46.4	0.0	14.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	27.1	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	73.5	0.0	14.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	18.4	0.0	2.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	2.5	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	20.9	0.0	2.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	2.07	0.00	0.12	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	0	1077	50	113	131
Future Volume (veh/h)	22	0	1077	50	113	131
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	0	1171	54	123	142
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	367	0	2562	1143	189	168
Arrive On Green	0.02	0.00	0.72	0.72	0.11	0.11
Sat Flow, veh/h	1781	24	3647	1585	1781	1585
Grp Volume(v), veh/h	24	5.2	1171	54	123	142
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	0.4		16.5	1.2	8.0	10.6
Cycle Q Clear(g_c), s	0.4		16.5	1.2	8.0	10.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	367		2562	1143	189	168
V/C Ratio(X)	0.07		0.46	0.05	0.65	0.84
Avail Cap(c_a), veh/h	489		2562	1143	312	277
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.2		7.0	4.8	51.5	52.7
Incr Delay (d2), s/veh	0.0		0.6	0.1	1.4	5.5
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1		5.0	0.3	3.6	4.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.2		7.6	4.9	52.9	58.1
LnGrp LOS	A		A	A	D	E
Approach Vol, veh/h			1225		265	
Approach Delay, s/veh			7.4		55.7	
Approach LOS			A		E	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	8.8	92.5				18.7
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	1.0	70.0				21.0
Max Q Clear Time (g_c+I1), s	2.4	18.5				12.6
Green Ext Time (p_c), s	0.0	4.0				0.2

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	0	1077	50	113	131
Future Volume (veh/h)	22	0	1077	50	113	131
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	0	1171	54	123	142
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	367	0	2562	1143	189	168
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.02	0.00	0.72	0.72	0.11	0.11
Unsig. Movement Delay						
Ln Grp Delay, s/veh	5.2	0.0	7.6	4.9	52.9	58.1
Ln Grp LOS	A	A	A	A	D	E
Approach Vol, veh/h		24	1225		265	
Approach Delay, s/veh		5.2	7.4		55.7	
Approach LOS		A	A		E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	8.8	92.5	18.7					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	11.0	70.0	21.0					
Max Allow Headway (MAH), s	2.2	3.3	2.4					
Max Q Clear (g_c+I1), s	2.4	18.5	12.6					
Green Ext Time (g_e), s	0.0	4.0	0.2					
Prob of Phs Call (p_c)	0.55	1.00	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	24	0	123	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	0.4	0.0	8.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.4	0.0	8.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	455	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	86.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	86.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	367	0	189	0	0	0	0	0
V/C Ratio (X)	0.07	0.00	0.65	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	489	0	312	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	5.2	0.0	51.5	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	5.2	0.0	52.9	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.1	0.0	3.6	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.1	0.0	3.6	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.01	0.00	0.21	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1171	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	16.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	16.5	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2562	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2562	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.6	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	54	142	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	1.2	10.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.2	10.6	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1143	168	0	0	0	0	0
V/C Ratio (X)	0.00	0.05	0.84	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1143	277	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.8	52.7	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	5.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.9	58.1	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.3	4.2	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.3	4.5	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.26	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		15.9						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	10	148	44	1	1	26	98	4	0	251	27
Future Vol, veh/h	25	10	148	44	1	1	26	98	4	0	251	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	11	161	48	1	1	28	107	4	0	273	29

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	398	455	151	307	467	56	302	0	0	111	0	0
Stage 1	288	288	-	165	165	-	-	-	-	-	-	-
Stage 2	110	167	-	142	302	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	536	500	868	622	492	999	1256	-	-	1477	-	-
Stage 1	695	672	-	821	761	-	-	-	-	-	-	-
Stage 2	883	759	-	846	663	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	525	489	868	490	481	999	1256	-	-	1477	-	-
Mov Cap-2 Maneuver	525	489	-	490	481	-	-	-	-	-	-	-
Stage 1	680	672	-	803	744	-	-	-	-	-	-	-
Stage 2	861	742	-	678	663	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	13	1.6	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1256	-	-	525	827	490	649	1477	-	-
HCM Lane V/C Ratio	0.023	-	-	0.052	0.208	0.098	0.003	-	-	-
HCM Control Delay (s)	7.9	-	-	12.2	10.5	13.1	10.6	0	-	-
HCM Lane LOS	A	-	-	B	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.8	0.3	0	0	-	-

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	108	16	69	0	1	209
Future Vol, veh/h	108	16	69	0	1	209
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	117	17	75	0	1	227

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	75	0	-	0	318	38
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	243	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1522	-	-	-	650	1026
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	775	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1522	-	-	-	600	1026
Mov Cap-2 Maneuver	-	-	-	-	600	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	775	-

Approach	EB	WB	SB
HCM Control Delay, s	6.6	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1522	-	-	-	1023
HCM Lane V/C Ratio	0.077	-	-	-	0.223
HCM Control Delay (s)	7.6	-	-	-	9.5
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	1	30	124	2	1	11	46	51	0	56	1
Future Vol, veh/h	7	1	30	124	2	1	11	46	51	0	56	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	1	33	135	2	1	12	50	55	0	61	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	165	191	62	181	164	78	62	0	0	105	0	0
Stage 1	62	62	-	102	102	-	-	-	-	-	-	-
Stage 2	103	129	-	79	62	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	800	704	1003	781	729	983	1541	-	-	1486	-	-
Stage 1	949	843	-	904	811	-	-	-	-	-	-	-
Stage 2	903	789	-	930	843	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	793	698	1003	750	723	983	1541	-	-	1486	-	-
Mov Cap-2 Maneuver	793	698	-	750	723	-	-	-	-	-	-	-
Stage 1	941	843	-	897	805	-	-	-	-	-	-	-
Stage 2	892	783	-	899	843	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	10.9	0.7	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1541	-	-	946	751	1486	-	-
HCM Lane V/C Ratio	0.008	-	-	0.044	0.184	-	-	-
HCM Control Delay (s)	7.4	0	-	9	10.9	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.7	0	-	-

2050 BACKGROUND PLUS PROJECT

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	78	32	0	6	21	391	49	2	339	1
Future Volume (veh/h)	4	0	78	32	0	6	21	391	49	2	339	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	0	85	35	0	7	23	425	53	2	368	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	2	182	423	5	31	169	607	73	718	717	2
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	54	17	1510	1249	38	257	36	1578	191	916	1864	5
Grp Volume(v), veh/h	89	0	0	42	0	0	501	0	0	2	0	369
Grp Sat Flow(s),veh/h/ln	1581	0	0	1544	0	0	1805	0	0	916	0	1869
Q Serve(g_s), s	0.6	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	3.7
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.5	0.0	0.0	5.6	0.0	0.0	0.0	0.0	3.7
Prop In Lane	0.04		0.96	0.83		0.17	0.05		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	346	0	0	459	0	0	849	0	0	718	0	719
V/C Ratio(X)	0.26	0.00	0.00	0.09	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.51
Avail Cap(c_a), veh/h	1520	0	0	1465	0	0	2867	0	0	1763	0	2852
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.9	0.0	0.0	9.6	0.0	0.0	6.3	0.0	0.0	4.6	0.0	5.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.1	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	0.0	0.0	9.6	0.0	0.0	6.6	0.0	0.0	4.6	0.0	5.9
LnGrp LOS	B	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		89			42			501			371	
Approach Delay, s/veh		10.1			9.6			6.6			5.9	
Approach LOS		B			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	15.3	8.9	15.3	8.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	37.0	21.0	37.0	21.0
Max Q Clear Time (g_c+I1), s	7.6	3.3	5.7	2.5
Green Ext Time (p_c), s	1.7	0.2	1.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	78	32	0	6	21	391	49	2	339	1
Future Volume (veh/h)	4	0	78	32	0	6	21	391	49	2	339	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	0	85	35	0	7	23	425	53	2	368	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	162	2	182	423	5	31	169	607	73	718	717	2
HCM 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
Prop Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.38	0.38	0.38	0.38	0.38	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	10.1	0.0	0.0	9.6	0.0	0.0	6.6	0.0	0.0	4.6	0.0	5.9
Ln Grp LOS	B	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		89			42			501			371	
Approach Delay, s/veh		10.1			9.6			6.6			5.9	
Approach LOS		B			A			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		8.0		6.0		8.0
Phs Duration (G+Y+Rc), s		15.3		8.9		15.3		8.9
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		37.0		21.0		37.0		21.0
Max Allow Headway (MAH), s		3.8		4.1		3.7		4.0
Max Q Clear (g_c+I1), s		7.6		3.3		5.7		2.5
Green Ext Time (g_e), s		1.7		0.2		1.1		0.1
Prob of Phs Call (p_c)		1.00		0.59		1.00		0.59
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		36		54		916		1249
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1578		17		1864		38
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		191		1510		5		257
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R		L+T+R		L		L+T+R

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	501	0	89	0	2	0	42
Grp Sat Flow (s), veh/h/ln	0	1805	0	1581	0	916	0	1544
Q Serve Time (g_s), s	0.0	0.5	0.0	0.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.6	0.0	1.3	0.0	0.0	0.0	0.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1029	0	1431	0	916	0	1333
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1866	0	1212	0	1796
Perm LT Eff Green (g_p), s	0.0	9.3	0.0	2.9	0.0	9.3	0.0	2.9
Perm LT Serve Time (g_u), s	0.0	5.7	0.0	2.4	0.0	3.7	0.0	1.7
Perm LT Q Serve Time (g_ps), s	0.0	0.5	0.0	0.6	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	5.1	0.0	0.7	0.0	0.0	0.0	0.1
Serve Time pre Blk (g_fs), s	0.0	5.1	0.0	0.7	0.0	0.0	0.0	0.1
Prop LT Inside Lane (P_L)	0.00	0.05	0.00	0.04	0.00	1.00	0.00	0.83
Lane Grp Cap (c), veh/h	0	849	0	346	0	718	0	459
V/C Ratio (X)	0.00	0.59	0.00	0.26	0.00	0.00	0.00	0.09
Avail Cap (c_a), veh/h	0	2867	0	1520	0	1763	0	1465
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	6.3	0.0	9.9	0.0	4.6	0.0	9.6
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.6	0.0	10.1	0.0	4.6	0.0	9.6
1st-Term Q (Q1), veh/ln	0.0	0.9	0.0	0.3	0.0	0.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.0	0.3	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.03	0.00	0.00	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment						T+R		
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	369	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1869	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.11	0.00	0.96	0.00	0.00	0.00	0.17
Lane Grp Cap (c), veh/h	0	0	0	0	0	719	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	2852	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	128	260	0	150	39	259	22	141	347	6
Future Volume (veh/h)	7	0	128	260	0	150	39	259	22	141	347	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	139	283	0	163	42	282	24	153	377	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	523	0	549	545	0	549	354	628	532	425	615	11
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.35	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1223	0	1585	1250	0	1585	999	1870	1585	1073	1830	34
Grp Volume(v), veh/h	8	0	139	283	0	163	42	282	24	153	0	384
Grp Sat Flow(s),veh/h/ln	1223	0	1585	1250	0	1585	999	1870	1585	1073	0	1864
Q Serve(g_s), s	0.2	0.0	2.4	7.9	0.0	2.8	1.4	4.5	0.4	4.9	0.0	6.5
Cycle Q Clear(g_c), s	3.0	0.0	2.4	10.3	0.0	2.8	7.9	4.5	0.4	9.4	0.0	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	523	0	549	545	0	549	354	628	532	425	0	626
V/C Ratio(X)	0.02	0.00	0.25	0.52	0.00	0.30	0.12	0.45	0.05	0.36	0.00	0.61
Avail Cap(c_a), veh/h	1104	0	1302	1139	0	1302	734	1338	1134	832	0	1334
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.1	0.0	8.8	12.5	0.0	9.0	13.8	9.8	8.5	13.5	0.0	10.5
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.1	0.1	0.2	0.0	0.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	1.7	0.0	0.7	0.3	1.4	0.1	1.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	0.0	8.9	12.8	0.0	9.1	13.8	10.0	8.5	13.7	0.0	10.8
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		147			446			348			537	
Approach Delay, s/veh		9.0			11.5			10.3			11.6	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	18.7	19.1	18.7	19.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	27.0	31.0	27.0	31.0
Max Q Clear Time (g_c+I1), s	9.9	5.0	11.4	12.3
Green Ext Time (p_c), s	0.8	0.4	1.3	0.8

Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	128	260	0	150	39	259	22	141	347	6
Future Volume (veh/h)	7	0	128	260	0	150	39	259	22	141	347	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	139	283	0	163	42	282	24	153	377	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	523	0	549	545	0	549	354	628	532	425	615	11
HCM 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
Prop Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.35	0.34	0.34	0.34	0.34	0.34	0.34
Unsig. Movement Delay												
Ln Grp Delay, s/veh	10.1	0.0	8.9	12.8	0.0	9.1	13.8	10.0	8.5	13.7	0.0	10.8
Ln Grp LOS	B	A	A	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		147			446			348			537	
Approach Delay, s/veh		9.0			11.5			10.3			11.6	
Approach LOS		A			B			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		18.7		19.1		18.7		19.1
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		27.0		31.0		27.0		31.0
Max Allow Headway (MAH), s		3.6		4.0		3.6		3.1
Max Q Clear (g_c+I1), s		9.9		5.0		11.4		12.3
Green Ext Time (g_e), s		0.8		0.4		1.3		0.8
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		999		1223		1073		1250
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		0		1830		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		34		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	42	0	8	0	153	0	283
Grp Sat Flow (s), veh/h/ln	0	999	0	1223	0	1073	0	1250
Q Serve Time (g_s), s	0.0	1.4	0.0	0.2	0.0	4.9	0.0	7.9
Cycle Q Clear Time (g_c), s	0.0	7.9	0.0	3.0	0.0	9.4	0.0	10.3
Perm LT Sat Flow (s_l), veh/h/ln	0	999	0	1223	0	1073	0	1250
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	12.7	0.0	13.1	0.0	12.7	0.0	13.1
Perm LT Serve Time (g_u), s	0.0	6.2	0.0	10.2	0.0	8.2	0.0	10.7
Perm LT Q Serve Time (g_ps), s	0.0	1.4	0.0	0.2	0.0	4.9	0.0	7.9
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	354	0	523	0	425	0	545
V/C Ratio (X)	0.00	0.12	0.00	0.02	0.00	0.36	0.00	0.52
Avail Cap (c_a), veh/h	0	734	0	1104	0	832	0	1139
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.8	0.0	10.1	0.0	13.5	0.0	12.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.8	0.0	10.1	0.0	13.7	0.0	12.8
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	0.0	0.0	0.9	0.0	1.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	0.0	0.0	1.0	0.0	1.7
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.01	0.00	0.25	0.00	0.44
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T						
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	282	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	628	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1338	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	24	0	139	0	384	0	163
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1864	0	1585
Q Serve Time (g_s), s	0.0	0.4	0.0	2.4	0.0	6.5	0.0	2.8
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	2.4	0.0	6.5	0.0	2.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	532	0	549	0	626	0	549
V/C Ratio (X)	0.00	0.05	0.00	0.25	0.00	0.61	0.00	0.30
Avail Cap (c_a), veh/h	0	1134	0	1302	0	1334	0	1302
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.5	0.0	8.8	0.0	10.5	0.0	9.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.5	0.0	8.9	0.0	10.8	0.0	9.1
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.6	0.0	2.0	0.0	0.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.6	0.0	2.0	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.04	0.00	0.03	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		11.0						
HCM 6th LOS		B						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	1129	51	192	841	87	73	93	102	151	103	254
Future Volume (veh/h)	246	1129	51	192	841	87	73	93	102	151	103	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	267	1227	55	209	914	95	79	101	0	164	112	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	336	1568	487	391	1554	693	176	152		197	470	
Arrive On Green	0.10	0.31	0.31	0.22	0.44	0.44	0.08	0.08	0.00	0.11	0.25	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1281	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	267	1227	55	209	914	95	79	101	0	164	112	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1281	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.6	21.9	2.5	10.4	19.5	3.6	6.0	5.2	0.0	9.0	4.8	0.0
Cycle Q Clear(g_c), s	7.6	21.9	2.5	10.4	19.5	3.6	6.0	5.2	0.0	9.0	4.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	336	1568	487	391	1554	693	176	152		197	470	
V/C Ratio(X)	0.80	0.78	0.11	0.53	0.59	0.14	0.45	0.67		0.83	0.24	
Avail Cap(c_a), veh/h	467	1568	487	391	1554	693	205	195		267	587	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.2	31.6	24.9	34.5	21.3	16.8	45.0	44.6	0.0	43.6	29.8	0.0
Incr Delay (d2), s/veh	4.2	4.0	0.5	0.8	1.6	0.4	0.7	2.7	0.0	15.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	8.9	0.9	4.3	7.6	1.4	1.9	2.5	0.0	4.8	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	35.6	25.3	35.3	22.9	17.2	45.7	47.3	0.0	58.6	29.9	0.0
LnGrp LOS	D	D	C	D	C	B	D	D		E	C	
Approach Vol, veh/h		1549			1218			180	A		276	A
Approach Delay, s/veh		37.4			24.6			46.6			46.9	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	16.2	51.0	17.1	15.7	29.2	38.0		32.8
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 14	* 34	15.0	10.4	* 17	* 31		31.4
Max Q Clear Time (g_c+I1), s	9.6	21.5	11.0	8.0	12.4	23.9		6.8
Green Ext Time (p_c), s	0.2	2.9	0.1	0.1	0.0	2.9		0.2

Intersection Summary	
HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	1129	51	192	841	87	73	93	102	151	103	254
Future Volume (veh/h)	246	1129	51	192	841	87	73	93	102	151	103	254
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	267	1227	55	209	914	95	79	101	0	164	112	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	336	1568	487	391	1554	693	176	152		197	470	
HCM 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
Prop Arrive On Green	0.10	0.31	0.31	0.22	0.44	0.44	0.08	0.08	0.00	0.11	0.25	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	48.4	35.6	25.3	35.3	22.9	17.2	45.7	47.3	0.0	58.6	29.9	0.0
Ln Grp LOS	D	D	C	D	C	B	D	D		E	C	
Approach Vol, veh/h		1549			1218			180			276	
Approach Delay, s/veh		37.4			24.6			46.6			46.9	
Approach LOS		D			C			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	6	5		8
Case No	2.0	3.0	2.0	5.3	3.0	2.0		3.0
Phs Duration (G+Y+Rc), s	16.2	51.0	17.1	15.7	38.0	29.2		32.8
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 14	* 34	15.0	10.4	* 31	* 17		31.4
Max Allow Headway (MAH), s	2.5	3.5	3.8	2.9	3.6	1.3		3.4
Max Q Clear (g_c+I1), s	9.6	21.5	11.0	8.0	23.9	12.4		6.8
Green Ext Time (g_e), s	0.2	2.9	0.1	0.1	2.9	0.0		0.2
Prob of Phs Call (p_c)	1.00	1.00	0.99	1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.13	0.00	0.86	1.00	0.00	0.19		0.00

Left-Turn Movement Data								
Assigned Mvmt	1		3	7		5		
Mvmt Sat Flow, veh/h	3456		1781	1281		1781		

Through Movement Data								
Assigned Mvmt		2		4	6			8
Mvmt Sat Flow, veh/h		3554		1870	5106			1870

Right-Turn Movement Data								
Assigned Mvmt		12		14	16			18
Mvmt Sat Flow, veh/h		1585		1585	1585			1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L (Prot)	L		L (Prot)		

Lanes in Grp	2	0	1	1	0	1	0	0
Grp Vol (v), veh/h	267	0	164	79	0	209	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1281	0	1781	0	0
Q Serve Time (g_s), s	7.6	0.0	9.0	6.0	0.0	10.4	0.0	0.0
Cycle Q Clear Time (g_c), s	7.6	0.0	9.0	6.0	0.0	10.4	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1281	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	8.1	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	8.1	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	336	0	197	176	0	391	0	0
V/C Ratio (X)	0.80	0.00	0.83	0.45	0.00	0.53	0.00	0.00
Avail Cap (c_a), veh/h	467	0	267	205	0	391	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	44.2	0.0	43.6	45.0	0.0	34.5	0.0	0.0
Incr Delay (d2), s/veh	4.2	0.0	15.0	0.7	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	48.4	0.0	58.6	45.7	0.0	35.3	0.0	0.0
1st-Term Q (Q1), veh/ln	3.1	0.0	3.9	1.9	0.0	4.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.8	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	3.3	0.0	4.8	1.9	0.0	4.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.19	0.00	0.53	0.31	0.00	0.41	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	914	0	101	1227	0	0	112
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	19.5	0.0	5.2	21.9	0.0	0.0	4.8
Cycle Q Clear Time (g_c), s	0.0	19.5	0.0	5.2	21.9	0.0	0.0	4.8
Lane Grp Cap (c), veh/h	0	1554	0	152	1568	0	0	470
V/C Ratio (X)	0.00	0.59	0.00	0.67	0.78	0.00	0.00	0.24
Avail Cap (c_a), veh/h	0	1554	0	195	1568	0	0	587
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.3	0.0	44.6	31.6	0.0	0.0	29.8
Incr Delay (d2), s/veh	0.0	1.6	0.0	2.7	4.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.9	0.0	47.3	35.6	0.0	0.0	29.9
1st-Term Q (Q1), veh/ln	0.0	7.3	0.0	2.4	8.3	0.0	0.0	2.1
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.1	0.6	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.6	0.0	2.5	8.9	0.0	0.0	2.1
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.10	0.18	0.00	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	95	0	0	55	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	3.6	0.0	0.0	2.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.6	0.0	0.0	2.5	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	693	0	128	487	0	0	399
V/C Ratio (X)	0.00	0.14	0.00	0.00	0.11	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	693	0	165	487	0	0	498
Upstream Filter (I)	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	16.8	0.0	0.0	24.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.5	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.2	0.0	0.0	25.3	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	0.0	0.9	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.4	0.0	0.0	0.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.00	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1108	315	395	663	10	429	57	159	28	135	108
Future Volume (veh/h)	63	1108	315	395	663	10	429	57	159	28	135	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1204	342	429	721	11	466	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	487	1357	421	456	1329	593	511	667	298	98	217	
Arrive On Green	0.14	0.27	0.27	0.26	0.37	0.37	0.15	0.19	0.19	0.03	0.06	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	68	1204	342	429	721	11	466	62	173	30	147	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.7	22.7	12.3	23.6	15.9	0.3	13.3	1.4	10.0	0.9	4.1	0.0
Cycle Q Clear(g_c), s	1.7	22.7	12.3	23.6	15.9	0.3	13.3	1.4	10.0	0.9	4.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	487	1357	421	456	1329	593	511	667	298	98	217	
V/C Ratio(X)	0.14	0.89	0.81	0.94	0.54	0.02	0.91	0.09	0.58	0.31	0.68	
Avail Cap(c_a), veh/h	487	1357	421	465	1329	593	511	667	298	470	281	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.6	35.3	12.7	36.4	24.6	11.0	42.0	33.6	37.0	47.6	46.0	0.0
Incr Delay (d2), s/veh	0.0	8.9	15.6	26.7	1.6	0.1	20.1	0.0	1.9	0.7	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	9.8	6.0	12.9	6.4	0.2	7.0	0.6	4.0	0.4	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	44.1	28.3	63.2	26.2	11.1	62.0	33.6	38.9	48.3	48.1	0.0
LnGrp LOS	D	D	C	E	C	B	E	C	D	D	D	
Approach Vol, veh/h		1614			1161			701			177	A
Approach Delay, s/veh		40.5			39.7			53.8			48.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.8	44.0	9.2	25.0	31.5	34.3	21.0	13.2
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 6.2	5.9	* 7.7	6.2	* 7.1
Max Green Setting (Gmax), s	12.3	* 37	13.6	* 9.9	26.1	* 26	14.8	* 7.9
Max Q Clear Time (g_c+I1), s	13.3	17.9	2.9	12.0	25.6	24.7	15.3	6.1
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.0	0.5	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	43.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1108	315	395	663	10	429	57	159	28	135	108
Future Volume (veh/h)	63	1108	315	395	663	10	429	57	159	28	135	108
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1204	342	429	721	11	466	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	487	1357	421	456	1329	593	511	667	298	98	217	
HCM 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
Prop Arrive On Green	0.14	0.27	0.27	0.26	0.37	0.37	0.15	0.19	0.19	0.03	0.06	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	37.7	44.1	28.3	63.2	26.2	11.1	62.0	33.6	38.9	48.3	48.1	0.0
Ln Grp LOS	D	D	C	E	C	B	E	C	D	D	D	
Approach Vol, veh/h		1614			1161			701			177	
Approach Delay, s/veh		40.5			39.7			53.8			48.1	
Approach LOS		D			D			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	3	4	5	6	8	7
Case No	3.0	2.0	2.0	3.0	2.0	3.0	3.0	2.0
Phs Duration (G+Y+Rc), s	44.0	21.8	9.2	25.0	31.5	34.3	13.2	21.0
Change Period (Y+Rc), s	* 6.6	7.7	6.4	* 6.2	5.9	* 7.7	* 7.1	6.2
Max Green (Gmax), s	* 37	12.3	13.6	* 9.9	26.1	* 26	* 7.9	14.8
Max Allow Headway (MAH), s	3.6	1.3	1.6	2.6	1.3	3.4	3.1	1.4
Max Q Clear (g_c+I1), s	17.9	3.7	2.9	12.0	25.6	24.7	6.1	15.3
Green Ext Time (g_e), s	2.4	0.0	0.0	0.0	0.0	0.5	0.1	0.0
Prob of Phs Call (p_c)	1.00	0.85	0.57	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt		1	3		5			7
Mvmt Sat Flow, veh/h		3456	3456		1781			3456

Through Movement Data								
Assigned Mvmt	2			4		6	8	
Mvmt Sat Flow, veh/h	3554			3554		5106	3554	

Right-Turn Movement Data								
Assigned Mvmt	12			14		16	18	
Mvmt Sat Flow, veh/h	1585			1585		1585	1585	

Left Lane Group Data								
Assigned Mvmt	0	1	3	0	5	0	0	7
Lane Assignment		L (Prot)	L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	0	2	2	0	1	0	0	2
Grp Vol (v), veh/h	0	68	30	0	429	0	0	466
Grp Sat Flow (s), veh/h/ln	0	1728	1728	0	1781	0	0	1728
Q Serve Time (g_s), s	0.0	1.7	0.9	0.0	23.6	0.0	0.0	13.3
Cycle Q Clear Time (g_c), s	0.0	1.7	0.9	0.0	23.6	0.0	0.0	13.3
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	487	98	0	456	0	0	511
V/C Ratio (X)	0.00	0.14	0.31	0.00	0.94	0.00	0.00	0.91
Avail Cap (c_a), veh/h	0	487	470	0	465	0	0	511
Upstream Filter (I)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	37.6	47.6	0.0	36.4	0.0	0.0	42.0
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.0	26.7	0.0	0.0	20.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	37.7	48.3	0.0	63.2	0.0	0.0	62.0
1st-Term Q (Q1), veh/ln	0.0	0.7	0.4	0.0	9.5	0.0	0.0	5.6
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	3.4	0.0	0.0	1.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.4	0.0	12.9	0.0	0.0	7.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.04	0.00	1.46	0.00	0.00	0.69
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	8	0
Lane Assignment	T			T		T	T	
Lanes in Grp	2	0	0	2	0	3	2	0
Grp Vol (v), veh/h	721	0	0	62	0	1204	147	0
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	15.9	0.0	0.0	1.4	0.0	22.7	4.1	0.0
Cycle Q Clear Time (g_c), s	15.9	0.0	0.0	1.4	0.0	22.7	4.1	0.0
Lane Grp Cap (c), veh/h	1329	0	0	667	0	1357	217	0
V/C Ratio (X)	0.54	0.00	0.00	0.09	0.00	0.89	0.68	0.00
Avail Cap (c_a), veh/h	1329	0	0	667	0	1357	281	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	24.6	0.0	0.0	33.6	0.0	35.3	46.0	0.0
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.0	0.0	8.9	2.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.2	0.0	0.0	33.6	0.0	44.1	48.1	0.0
1st-Term Q (Q1), veh/ln	6.1	0.0	0.0	0.6	0.0	8.7	1.8	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.0	0.0	0.0	1.1	0.1	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	6.4	0.0	0.0	0.6	0.0	9.8	1.8	0.0
%ile Storage Ratio (RQ%)	0.15	0.00	0.00	0.03	0.00	0.53	0.06	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	18	0
Lane Assignment	R			R		R	R	
Lanes in Grp	1	0	0	1	0	1	1	0
Grp Vol (v), veh/h	11	0	0	173	0	342	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	1585	0
Q Serve Time (g_s), s	0.3	0.0	0.0	10.0	0.0	12.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.3	0.0	0.0	10.0	0.0	12.3	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	593	0	0	298	0	421	97	0
V/C Ratio (X)	0.02	0.00	0.00	0.58	0.00	0.81	0.00	0.00
Avail Cap (c_a), veh/h	593	0	0	298	0	421	125	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	11.0	0.0	0.0	37.0	0.0	12.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.9	0.0	15.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	11.1	0.0	0.0	38.9	0.0	28.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.2	0.0	0.0	3.8	0.0	4.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	1.8	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.2	0.0	0.0	4.0	0.0	6.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.02	0.00	0.00	0.39	0.00	0.67	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	43.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	877	280	168	625	305	344	100	162	354	112	136
Future Volume (veh/h)	107	877	280	168	625	305	344	100	162	354	112	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	953	304	183	679	332	374	109	176	385	122	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	1102	491	448	1260	562	440	98	159	447	290	246
Arrive On Green	0.08	0.31	0.31	0.13	0.35	0.35	0.13	0.15	0.15	0.13	0.16	0.16
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	644	1039	3456	1870	1585
Grp Volume(v), veh/h	116	953	304	183	679	332	374	0	285	385	122	148
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	0	1683	1728	1870	1585
Q Serve(g_s), s	6.4	25.3	10.1	4.9	15.2	17.1	10.6	0.0	15.3	10.9	5.9	8.7
Cycle Q Clear(g_c), s	6.4	25.3	10.1	4.9	15.2	17.1	10.6	0.0	15.3	10.9	5.9	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		1.00
Lane Grp Cap(c), veh/h	144	1102	491	448	1260	562	440	0	258	447	290	246
V/C Ratio(X)	0.80	0.87	0.62	0.41	0.54	0.59	0.85	0.00	1.11	0.86	0.42	0.60
Avail Cap(c_a), veh/h	224	1102	491	448	1260	562	529	0	258	460	290	246
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	32.5	11.2	40.0	25.7	26.3	42.7	0.0	42.4	42.6	38.2	39.4
Incr Delay (d2), s/veh	5.4	9.1	5.8	0.2	1.7	4.5	9.4	0.0	87.7	14.2	0.4	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	11.4	4.1	2.0	6.2	7.0	5.1	0.0	12.6	5.5	2.7	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	41.6	17.0	40.2	27.4	30.9	52.1	0.0	130.0	56.9	38.5	42.3
LnGrp LOS	D	D	B	D	C	C	D	A	F	E	D	D
Approach Vol, veh/h		1373			1194			659			655	
Approach Delay, s/veh		36.9			30.3			85.8			50.2	
Approach LOS		D			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	42.9	19.6	22.0	20.4	38.0	19.4	22.2
Change Period (Y+Rc), s	* 7.4	* 7.4	* 6.7	* 6.7	7.4	* 7	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 13	* 31	* 13	* 15	12.6	* 31	* 15	* 13
Max Q Clear Time (g_c+I1), s	8.4	19.1	12.9	17.3	6.9	27.3	12.6	10.7
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	0.1	1.7	0.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	45.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	877	280	168	625	305	344	100	162	354	112	136
Future Volume (veh/h)	107	877	280	168	625	305	344	100	162	354	112	136
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	953	304	183	679	332	374	109	176	385	122	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	144	1102	491	448	1260	562	440	98	159	447	290	246
HCM 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
Prop Arrive On Green	0.08	0.31	0.31	0.13	0.35	0.35	0.13	0.15	0.15	0.13	0.16	0.16
Unsig. Movement Delay												
Ln Grp Delay, s/veh	50.6	41.6	17.0	40.2	27.4	30.9	52.1	0.0	130.0	56.9	38.5	42.3
Ln Grp LOS	D	D	B	D	C	C	D	A	F	E	D	D
Approach Vol, veh/h		1373			1194			659			655	
Approach Delay, s/veh		36.9			30.3			85.8			50.2	
Approach LOS		D			C			F			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	6	5	7	8
Case No	2.0	3.0	2.0	4.0	3.0	2.0	2.0	3.0
Phs Duration (G+Y+Rc), s	15.5	42.9	19.6	22.0	38.0	20.4	19.4	22.2
Change Period (Y+Rc), s	* 7.4	* 7.4	* 6.7	* 6.7	* 7	7.4	* 6.7	* 6.7
Max Green (Gmax), s	* 13	* 31	* 13	* 15	* 31	12.6	* 15	* 13
Max Allow Headway (MAH), s	2.2	3.4	2.3	4.5	3.5	2.2	2.2	3.5
Max Q Clear (g_c+I1), s	8.4	19.1	12.9	17.3	27.3	6.9	12.6	10.7
Green Ext Time (g_e), s	0.0	2.5	0.0	0.0	1.7	0.1	0.2	0.2
Prob of Phs Call (p_c)	0.96	1.00	1.00	1.00	1.00	0.99	1.00	1.00
Prob of Max Out (p_x)	0.02	0.00	1.00	1.00	0.00	0.00	0.45	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3			5	7	
Mvmt Sat Flow, veh/h	1781		3456			3456	3456	

Through Movement Data								
Assigned Mvmt		2		4	6			8
Mvmt Sat Flow, veh/h		3554		644	3554			1870

Right-Turn Movement Data								
Assigned Mvmt		12		14	16			18
Mvmt Sat Flow, veh/h		1585		1039	1585			1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	0	5	7	0
Lane Assignment	L (Prot)		L (Prot)			L (Prot)	L (Prot)	

Lanes in Grp	1	0	2	0	0	2	2	0
Grp Vol (v), veh/h	116	0	385	0	0	183	374	0
Grp Sat Flow (s), veh/h/ln	1781	0	1728	0	0	1728	1728	0
Q Serve Time (g_s), s	6.4	0.0	10.9	0.0	0.0	4.9	10.6	0.0
Cycle Q Clear Time (g_c), s	6.4	0.0	10.9	0.0	0.0	4.9	10.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	144	0	447	0	0	448	440	0
V/C Ratio (X)	0.80	0.00	0.86	0.00	0.00	0.41	0.85	0.00
Avail Cap (c_a), veh/h	224	0	460	0	0	448	529	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	45.2	0.0	42.6	0.0	0.0	40.0	42.7	0.0
Incr Delay (d2), s/veh	5.4	0.0	14.2	0.0	0.0	0.2	9.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	50.6	0.0	56.9	0.0	0.0	40.2	52.1	0.0
1st-Term Q (Q1), veh/ln	2.7	0.0	4.6	0.0	0.0	2.0	4.5	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.9	0.0	0.0	0.0	0.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.9	0.0	5.5	0.0	0.0	2.0	5.1	0.0
%ile Storage Ratio (RQ%)	0.15	0.00	0.70	0.00	0.00	0.21	0.50	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T			T			T
Lanes in Grp	0	2	0	0	2	0	0	1
Grp Vol (v), veh/h	0	679	0	0	953	0	0	122
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	1777	0	0	1870
Q Serve Time (g_s), s	0.0	15.2	0.0	0.0	25.3	0.0	0.0	5.9
Cycle Q Clear Time (g_c), s	0.0	15.2	0.0	0.0	25.3	0.0	0.0	5.9
Lane Grp Cap (c), veh/h	0	1260	0	0	1102	0	0	290
V/C Ratio (X)	0.00	0.54	0.00	0.00	0.87	0.00	0.00	0.42
Avail Cap (c_a), veh/h	0	1260	0	0	1102	0	0	290
Upstream Filter (I)	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.7	0.0	0.0	32.5	0.0	0.0	38.2
Incr Delay (d2), s/veh	0.0	1.7	0.0	0.0	9.1	0.0	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	27.4	0.0	0.0	41.6	0.0	0.0	38.5
1st-Term Q (Q1), veh/ln	0.0	5.9	0.0	0.0	10.0	0.0	0.0	2.7
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	1.4	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.2	0.0	0.0	11.4	0.0	0.0	2.7
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.27	0.00	0.00	0.21
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		T+R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	332	0	285	304	0	0	148
Grp Sat Flow (s), veh/h/ln	0	1585	0	1683	1585	0	0	1585
Q Serve Time (g_s), s	0.0	17.1	0.0	15.3	10.1	0.0	0.0	8.7
Cycle Q Clear Time (g_c), s	0.0	17.1	0.0	15.3	10.1	0.0	0.0	8.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.62	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	562	0	258	491	0	0	246
V/C Ratio (X)	0.00	0.59	0.00	1.11	0.62	0.00	0.00	0.60
Avail Cap (c_a), veh/h	0	562	0	258	491	0	0	246
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	26.3	0.0	42.4	11.2	0.0	0.0	39.4
Incr Delay (d2), s/veh	0.0	4.5	0.0	87.7	5.8	0.0	0.0	2.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	30.9	0.0	130.0	17.0	0.0	0.0	42.3
1st-Term Q (Q1), veh/ln	0.0	6.3	0.0	6.3	3.4	0.0	0.0	3.4
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	6.3	0.8	0.0	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.0	0.0	12.6	4.1	0.0	0.0	3.6
%ile Storage Ratio (RQ%)	0.00	0.73	0.00	0.68	0.20	0.00	0.00	0.90
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	6.9	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	923	182	223	161
Future Volume (veh/h)	166	0	923	182	223	161
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1003	198	242	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	386	0	2153	960	278	247
Arrive On Green	0.06	0.00	0.61	0.61	0.16	0.16
Sat Flow, veh/h	1781	180	3647	1585	1781	1585
Grp Volume(v), veh/h	180	8.6	1003	198	242	175
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	3.8		15.5	5.6	13.3	10.5
Cycle Q Clear(g_c), s	3.8		15.5	5.6	13.3	10.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	386		2153	960	278	247
V/C Ratio(X)	0.47		0.47	0.21	0.87	0.71
Avail Cap(c_a), veh/h	514		2153	960	445	396
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.2		10.8	8.9	41.2	40.0
Incr Delay (d2), s/veh	0.3		0.7	0.5	6.3	1.4
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1		5.2	1.7	6.2	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.6		11.6	9.4	47.5	41.4
LnGrp LOS	A		B	A	D	D
Approach Vol, veh/h			1201		417	
Approach Delay, s/veh			11.2		45.0	
Approach LOS			B		D	

Timer - Assigned Phs	1	2	8
Phs Duration (G+Y+Rc), s	11.8	66.6	21.6
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	13.0	44.0	25.0
Max Q Clear Time (g_c+I1), s	5.8	17.5	15.3
Green Ext Time (p_c), s	0.1	3.3	0.3

Intersection Summary	
HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	923	182	223	161
Future Volume (veh/h)	166	0	923	182	223	161
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1003	198	242	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	386	0	2153	960	278	247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.00	0.61	0.61	0.16	0.16
Unsig. Movement Delay						
Ln Grp Delay, s/veh	8.6	0.0	11.6	9.4	47.5	41.4
Ln Grp LOS	A	A	B	A	D	D
Approach Vol, veh/h		180	1201		417	
Approach Delay, s/veh		8.6	11.2		45.0	
Approach LOS		A	B		D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	11.8	66.6	21.6					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	44.0	25.0					
Max Allow Headway (MAH), s	2.2	3.2	2.4					
Max Q Clear (g_c+I1), s	5.8	17.5	15.3					
Green Ext Time (g_e), s	0.1	3.3	0.3					
Prob of Phs Call (p_c)	0.99	1.00	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	180	0	242	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	3.8	0.0	13.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.8	0.0	13.3	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	466	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	60.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	45.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	60.6	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	386	0	278	0	0	0	0	0
V/C Ratio (X)	0.47	0.00	0.87	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	514	0	445	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.2	0.0	41.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	6.3	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.6	0.0	47.5	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.1	0.0	5.8	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.1	0.0	6.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.11	0.00	0.36	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1003	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	15.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	15.5	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2153	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2153	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.6	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	198	175	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	5.6	10.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.6	10.5	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	960	247	0	0	0	0	0
V/C Ratio (X)	0.00	0.21	0.71	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	960	396	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.9	40.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	1.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.4	41.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.6	4.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.7	4.1	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.40	0.24	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		18.8						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	3	35	58	0	0	4	267	66	0	268	39
Future Vol, veh/h	59	3	35	58	0	0	4	267	66	0	268	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	3	38	63	0	0	4	290	72	0	291	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	465	682	167	481	667	181	333	0	0	362	0	0
Stage 1	312	312	-	334	334	-	-	-	-	-	-	-
Stage 2	153	370	-	147	333	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	481	371	848	468	378	831	1223	-	-	1193	-	-
Stage 1	673	656	-	653	642	-	-	-	-	-	-	-
Stage 2	834	619	-	841	642	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	480	370	848	443	377	831	1223	-	-	1193	-	-
Mov Cap-2 Maneuver	480	370	-	443	377	-	-	-	-	-	-	-
Stage 1	671	656	-	651	640	-	-	-	-	-	-	-
Stage 2	831	617	-	799	642	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	14.5	0.1	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1223	-	-	480	770	443	-	1193	-	-
HCM Lane V/C Ratio	0.004	-	-	0.134	0.054	0.142	-	-	-	-
HCM Control Delay (s)	8	-	-	13.7	9.9	14.5	0	0	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0.5	-	0	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	211	113	97	0	0	211
Future Vol, veh/h	211	113	97	0	0	211
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	229	123	105	0	0	229

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	105	0	-	0	625	53
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	520	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1484	-	-	-	417	1003
Stage 1	-	-	-	-	908	-
Stage 2	-	-	-	-	561	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1484	-	-	-	353	1003
Mov Cap-2 Maneuver	-	-	-	-	353	-
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	561	-

Approach	EB	WB	SB
HCM Control Delay, s	5.1	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1484	-	-	-	1003
HCM Lane V/C Ratio	0.155	-	-	-	0.229
HCM Control Delay (s)	7.9	-	-	-	9.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.9

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	56	1	0	22	95	95	0	46	2
Future Vol, veh/h	0	0	11	56	1	0	22	95	95	0	46	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	61	1	0	24	103	103	0	50	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	254	305	51	260	255	155	52	0	0	206	0	0
Stage 1	51	51	-	203	203	-	-	-	-	-	-	-
Stage 2	203	254	-	57	52	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	699	608	1017	693	649	891	1554	-	-	1365	-	-
Stage 1	962	852	-	799	733	-	-	-	-	-	-	-
Stage 2	799	697	-	955	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	689	597	1017	676	637	891	1554	-	-	1365	-	-
Mov Cap-2 Maneuver	689	597	-	676	637	-	-	-	-	-	-	-
Stage 1	945	852	-	785	720	-	-	-	-	-	-	-
Stage 2	783	684	-	944	852	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.6	10.9	0.8	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1554	-	-	1017	675	1365	-	-
HCM Lane V/C Ratio	0.015	-	-	0.012	0.092	-	-	-
HCM Control Delay (s)	7.4	0	-	8.6	10.9	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0	-	-

1: Highland Blvd & Grant Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	48	30	0	10	52	517	79	16	839	4
Future Volume (veh/h)	3	0	48	30	0	10	52	517	79	16	839	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	0	52	33	0	11	57	562	86	17	912	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	2	127	261	3	33	129	705	102	493	1119	5
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	61	25	1495	1133	35	389	46	1172	169	783	1861	8
Grp Volume(v), veh/h	55	0	0	44	0	0	705	0	0	17	0	916
Grp Sat Flow(s),veh/h/ln	1581	0	0	1557	0	0	1388	0	0	783	0	1869
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	14.7
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.9	0.0	0.0	18.2	0.0	0.0	0.6	0.0	14.7
Prop In Lane	0.05		0.95	0.75		0.25	0.08		0.12	1.00		0.00
Lane Grp Cap(c), veh/h	234	0	0	297	0	0	936	0	0	493	0	1123
V/C Ratio(X)	0.24	0.00	0.00	0.15	0.00	0.00	0.75	0.00	0.00	0.03	0.00	0.82
Avail Cap(c_a), veh/h	964	0	0	949	0	0	1512	0	0	780	0	1808
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	0.0	16.4	0.0	0.0	5.4	0.0	0.0	3.2	0.0	6.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.3	0.0	0.0	1.7	0.0	0.0	0.0	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.8	0.0	0.0	16.5	0.0	0.0	5.9	0.0	0.0	3.2	0.0	6.6
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		55			44			705			933	
Approach Delay, s/veh		16.8			16.5			5.9			6.5	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	29.0	9.3	29.0	9.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	37.0	21.0	37.0	21.0
Max Q Clear Time (g_c+I1), s	20.2	3.3	16.7	2.9
Green Ext Time (p_c), s	2.8	0.1	3.7	0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

1: Highland Blvd & Grant Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	48	30	0	10	52	517	79	16	839	4
Future Volume (veh/h)	3	0	48	30	0	10	52	517	79	16	839	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	0	52	33	0	11	57	562	86	17	912	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	104	2	127	261	3	33	129	705	102	493	1119	5
HCM 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
Prop Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.60	0.60	0.60	0.60	0.60	0.60
Unsig. Movement Delay												
Ln Grp Delay, s/veh	16.8	0.0	0.0	16.5	0.0	0.0	5.9	0.0	0.0	3.2	0.0	6.6
Ln Grp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		55			44			705			933	
Approach Delay, s/veh		16.8			16.5			5.9			6.5	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		8.0		6.0		8.0
Phs Duration (G+Y+Rc), s		29.0		9.3		29.0		9.3
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		37.0		21.0		37.0		21.0
Max Allow Headway (MAH), s		4.0		4.1		3.7		3.9
Max Q Clear (g_c+I1), s		20.2		3.3		16.7		2.9
Green Ext Time (g_e), s		2.8		0.1		3.7		0.1
Prob of Phs Call (p_c)		1.00		0.65		1.00		0.65
Prob of Max Out (p_x)		0.03		0.00		0.03		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		46		61		783		1133
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1172		25		1861		35
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		169		1495		8		389
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R		L+T+R		L		L+T+R

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	705	0	55	0	17	0	44
Grp Sat Flow (s), veh/h/ln	0	1388	0	1581	0	783	0	1557
Q Serve Time (g_s), s	0.0	3.6	0.0	0.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	18.2	0.0	1.3	0.0	0.6	0.0	0.9
Perm LT Sat Flow (s_l), veh/h/ln	0	619	0	1426	0	783	0	1374
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1865	0	435	0	1803
Perm LT Eff Green (g_p), s	0.0	23.0	0.0	3.3	0.0	23.0	0.0	3.3
Perm LT Serve Time (g_u), s	0.0	8.3	0.0	2.4	0.0	4.8	0.0	2.0
Perm LT Q Serve Time (g_ps), s	0.0	3.6	0.0	0.3	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	10.3	0.0	0.9	0.0	0.0	0.0	0.1
Serve Time pre Blk (g_fs), s	0.0	9.6	0.0	0.9	0.0	0.0	0.0	0.1
Prop LT Inside Lane (P_L)	0.00	0.08	0.00	0.05	0.00	1.00	0.00	0.75
Lane Grp Cap (c), veh/h	0	936	0	234	0	493	0	297
V/C Ratio (X)	0.00	0.75	0.00	0.24	0.00	0.03	0.00	0.15
Avail Cap (c_a), veh/h	0	1512	0	964	0	780	0	949
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	5.4	0.0	16.6	0.0	3.2	0.0	16.4
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.2	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.9	0.0	16.8	0.0	3.2	0.0	16.5
1st-Term Q (Q1), veh/ln	0.0	1.5	0.0	0.4	0.0	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.0	0.4	0.0	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.04	0.00	0.00	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment						T+R		
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	916	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1869	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.12	0.00	0.95	0.00	0.00	0.00	0.25
Lane Grp Cap (c), veh/h	0	0	0	0	0	1123	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1808	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		6.8						
HCM 6th LOS		A						

2: Highland Blvd & 11800 North

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	100	207	0	131	99	512	258	276	633	8
Future Volume (veh/h)	5	0	100	207	0	131	99	512	258	276	633	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	109	225	0	142	108	557	280	300	688	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	0	410	371	0	410	331	1047	887	354	1031	13
Arrive On Green	0.26	0.00	0.26	0.26	0.00	0.26	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1246	0	1585	1284	0	1585	748	1870	1585	657	1842	24
Grp Volume(v), veh/h	5	0	109	225	0	142	108	557	280	300	0	697
Grp Sat Flow(s),veh/h/ln	1246	0	1585	1284	0	1585	748	1870	1585	657	0	1866
Q Serve(g_s), s	0.2	0.0	3.6	11.2	0.0	4.8	7.8	12.3	6.2	24.7	0.0	17.4
Cycle Q Clear(g_c), s	5.0	0.0	3.6	14.8	0.0	4.8	25.2	12.3	6.2	37.0	0.0	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	341	0	410	371	0	410	331	1047	887	354	0	1044
V/C Ratio(X)	0.01	0.00	0.27	0.61	0.00	0.35	0.33	0.53	0.32	0.85	0.00	0.67
Avail Cap(c_a), veh/h	414	0	504	447	0	504	331	1047	887	354	0	1044
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	19.5	25.4	0.0	19.9	19.1	9.1	7.8	23.0	0.0	10.2
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.6	0.0	0.2	0.2	0.3	0.1	16.5	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.3	3.3	0.0	1.7	1.3	4.2	1.8	6.3	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	0.0	19.6	26.0	0.0	20.1	19.3	9.4	7.9	39.5	0.0	11.6
LnGrp LOS	C	A	B	C	A	C	B	A	A	D	A	B
Approach Vol, veh/h		114			367			945			997	
Approach Delay, s/veh		19.7			23.8			10.1			20.0	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	43.0	23.1	43.0	23.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	37.0	21.0	37.0	21.0
Max Q Clear Time (g_c+I1), s	27.2	7.0	39.0	16.8
Green Ext Time (p_c), s	2.1	0.2	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

2: Highland Blvd & 11800 North

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	100	207	0	131	99	512	258	276	633	8
Future Volume (veh/h)	5	0	100	207	0	131	99	512	258	276	633	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	109	225	0	142	108	557	280	300	688	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	341	0	410	371	0	410	331	1047	887	354	1031	13
HCM 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
Prop Arrive On Green	0.26	0.00	0.26	0.26	0.00	0.26	0.56	0.56	0.56	0.56	0.56	0.56
Unsig. Movement Delay												
Ln Grp Delay, s/veh	22.0	0.0	19.6	26.0	0.0	20.1	19.3	9.4	7.9	39.5	0.0	11.6
Ln Grp LOS	C	A	B	C	A	C	B	A	A	D	A	B
Approach Vol, veh/h		114			367			945			997	
Approach Delay, s/veh		19.7			23.8			10.1			20.0	
Approach LOS		B			C			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		43.0		23.1		43.0		23.1
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		37.0		21.0		37.0		21.0
Max Allow Headway (MAH), s		3.5		4.0		4.1		3.1
Max Q Clear (g_c+I1), s		27.2		7.0		39.0		16.8
Green Ext Time (g_e), s		2.1		0.2		0.0		0.3
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.16		0.00		1.00		0.45
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		748		1246		657		1284
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		0		1842		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		24		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	108	0	5	0	300	0	225
Grp Sat Flow (s), veh/h/ln	0	748	0	1246	0	657	0	1284
Q Serve Time (g_s), s	0.0	7.8	0.0	0.2	0.0	24.7	0.0	11.2
Cycle Q Clear Time (g_c), s	0.0	25.2	0.0	5.0	0.0	37.0	0.0	14.8
Perm LT Sat Flow (s_l), veh/h/ln	0	748	0	1246	0	657	0	1284
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	37.0	0.0	17.1	0.0	37.0	0.0	17.1
Perm LT Serve Time (g_u), s	0.0	19.6	0.0	12.3	0.0	24.7	0.0	13.5
Perm LT Q Serve Time (g_ps), s	0.0	7.8	0.0	0.2	0.0	24.7	0.0	11.2
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	331	0	341	0	354	0	371
V/C Ratio (X)	0.00	0.33	0.00	0.01	0.00	0.85	0.00	0.61
Avail Cap (c_a), veh/h	0	331	0	414	0	354	0	447
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.1	0.0	22.0	0.0	23.0	0.0	25.4
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	16.5	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.3	0.0	22.0	0.0	39.5	0.0	26.0
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	0.1	0.0	4.6	0.0	3.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.3	0.0	0.1	0.0	6.3	0.0	3.3
%ile Storage Ratio (RQ%)	0.00	0.33	0.00	0.02	0.00	1.59	0.00	0.83
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T						
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	557	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1047	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1047	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	280	0	109	0	697	0	142
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1866	0	1585
Q Serve Time (g_s), s	0.0	6.2	0.0	3.6	0.0	17.4	0.0	4.8
Cycle Q Clear Time (g_c), s	0.0	6.2	0.0	3.6	0.0	17.4	0.0	4.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.01	0.00	1.00
Lane Grp Cap (c), veh/h	0	887	0	410	0	1044	0	410
V/C Ratio (X)	0.00	0.32	0.00	0.27	0.00	0.67	0.00	0.35
Avail Cap (c_a), veh/h	0	887	0	504	0	1044	0	504
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.8	0.0	19.5	0.0	10.2	0.0	19.9
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.1	0.0	1.3	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.9	0.0	19.6	0.0	11.6	0.0	20.1
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	1.3	0.0	5.8	0.0	1.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	1.3	0.0	6.2	0.0	1.7
%ile Storage Ratio (RQ%)	0.00	0.23	0.00	0.06	0.00	0.08	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		16.7						
HCM 6th LOS		B						

3: Highland Blvd & SR - 92

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	449	2110	54	237	842	160	130	254	258	277	219	342
Future Volume (veh/h)	449	2110	54	237	842	160	130	254	258	277	219	342
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	488	2293	59	258	915	174	141	276	280	301	238	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	545	2306	716	733	2529	1128	199	236	200	192	524	
Arrive On Green	0.16	0.45	0.45	0.41	0.71	0.71	0.13	0.13	0.13	0.11	0.28	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	1142	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	488	2293	59	258	915	174	141	276	280	301	238	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1142	1870	1585	1781	1870	1585
Q Serve(g_s), s	18.0	58.1	2.8	13.0	13.0	4.6	16.0	16.4	12.4	14.0	13.6	0.0
Cycle Q Clear(g_c), s	18.0	58.1	2.8	13.0	13.0	4.6	16.0	16.4	12.4	14.0	13.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	545	2306	716	733	2529	1128	199	236	200	192	524	
V/C Ratio(X)	0.90	0.99	0.08	0.35	0.36	0.15	0.71	1.17	1.40	1.57	0.45	
Avail Cap(c_a), veh/h	704	2306	716	733	2529	1128	199	236	200	192	524	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.7	35.5	20.3	26.3	7.3	6.1	56.6	56.8	32.6	58.0	38.6	0.0
Incr Delay (d2), s/veh	10.1	17.5	0.2	0.1	0.4	0.3	9.4	112.2	207.5	279.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	25.9	1.0	5.3	4.2	1.6	5.1	15.1	16.3	21.2	6.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.8	53.0	20.5	26.4	7.7	6.4	66.0	169.0	240.0	337.8	38.8	0.0
LnGrp LOS	E	D	C	C	A	A	E	F	F	F	D	
Approach Vol, veh/h		2840			1347			697			539	A
Approach Delay, s/veh		54.2			11.1			176.7			205.8	
Approach LOS		D			B			F			F	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	27.0	101.0	20.0	24.0	62.0	66.0		44.0
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 23	* 46	14.0	16.4	* 14	* 59		36.4
Max Q Clear Time (g_c+I1), s	20.0	15.0	16.0	18.4	15.0	60.1		15.6
Green Ext Time (p_c), s	0.5	3.7	0.0	0.0	0.0	0.0		0.5

Intersection Summary	
HCM 6th Ctrl Delay	74.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

3: Highland Blvd & SR - 92

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	449	2110	54	237	842	160	130	254	258	277	219	342
Future Volume (veh/h)	449	2110	54	237	842	160	130	254	258	277	219	342
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	488	2293	59	258	915	174	141	276	280	301	238	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	545	2306	716	733	2529	1128	199	236	200	192	524	
HCM 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
Prop Arrive On Green	0.16	0.45	0.45	0.41	0.71	0.71	0.13	0.13	0.13	0.11	0.28	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	63.8	53.0	20.5	26.4	7.7	6.4	66.0	169.0	240.0	337.8	38.8	0.0
Ln Grp LOS	E	D	C	C	A	A	E	F	F	F	D	
Approach Vol, veh/h		2840			1347			697			539	
Approach Delay, s/veh		54.2			11.1			176.7			205.8	
Approach LOS		D			B			F			F	

Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	6	5		8			
Case No		2.0	3.0	2.0	5.3	3.0	2.0		3.0			
Phs Duration (G+Y+Rc), s		27.0	101.0	20.0	24.0	66.0	62.0		44.0			
Change Period (Y+Rc), s		* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6			
Max Green (Gmax), s		* 27	* 46	14.0	16.4	* 59	* 14		36.4			
Max Allow Headway (MAH), s		2.5	3.5	3.8	2.8	3.6	1.3		3.4			
Max Q Clear (g_c+I1), s		20.0	15.0	16.0	18.4	60.1	15.0		15.6			
Green Ext Time (g_e), s		0.5	3.7	0.0	0.0	0.0	0.0		0.5			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	1.00	1.00		1.00			
Prob of Max Out (p_x)		0.02	0.00	1.00	1.00	0.00	1.00		0.00			

Left-Turn Movement Data												
Assigned Mvmt		1		3	7		5					
Mvmt Sat Flow, veh/h		3456		1781	1142		1781					

Through Movement Data												
Assigned Mvmt			2		4	6			8			
Mvmt Sat Flow, veh/h			3554		1870	5106			1870			

Right-Turn Movement Data												
Assigned Mvmt			12		14	16			18			
Mvmt Sat Flow, veh/h			1585		1585	1585			1585			

Left Lane Group Data												
Assigned Mvmt		1	0	3	7	0	5	0	0			
Lane Assignment		L (Prot)		L (Prot)	L		L (Prot)					

Lanes in Grp	2	0	1	1	0	1	0	0
Grp Vol (v), veh/h	488	0	301	141	0	258	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	1142	0	1781	0	0
Q Serve Time (g_s), s	18.0	0.0	14.0	16.0	0.0	13.0	0.0	0.0
Cycle Q Clear Time (g_c), s	18.0	0.0	14.0	16.0	0.0	13.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1142	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	16.4	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	16.4	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	545	0	192	199	0	733	0	0
V/C Ratio (X)	0.90	0.00	1.57	0.71	0.00	0.35	0.00	0.00
Avail Cap (c_a), veh/h	704	0	192	199	0	733	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	53.7	0.0	58.0	56.6	0.0	26.3	0.0	0.0
Incr Delay (d2), s/veh	10.1	0.0	279.8	9.4	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	63.8	0.0	337.8	66.0	0.0	26.4	0.0	0.0
1st-Term Q (Q1), veh/ln	7.6	0.0	6.3	4.6	0.0	5.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.8	0.0	14.9	0.5	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	8.3	0.0	21.2	5.1	0.0	5.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.49	0.00	2.36	0.81	0.00	0.50	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	27.3	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	1	3	0	0	1
Grp Vol (v), veh/h	0	915	0	276	2293	0	0	238
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	1702	0	0	1870
Q Serve Time (g_s), s	0.0	13.0	0.0	16.4	58.1	0.0	0.0	13.6
Cycle Q Clear Time (g_c), s	0.0	13.0	0.0	16.4	58.1	0.0	0.0	13.6
Lane Grp Cap (c), veh/h	0	2529	0	236	2306	0	0	524
V/C Ratio (X)	0.00	0.36	0.00	1.17	0.99	0.00	0.00	0.45
Avail Cap (c_a), veh/h	0	2529	0	236	2306	0	0	524
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.3	0.0	56.8	35.5	0.0	0.0	38.6
Incr Delay (d2), s/veh	0.0	0.4	0.0	112.2	17.5	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.7	0.0	169.0	53.0	0.0	0.0	38.8
1st-Term Q (Q1), veh/ln	0.0	4.1	0.0	7.7	22.2	0.0	0.0	6.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	7.4	3.7	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.2	0.0	15.1	25.9	0.0	0.0	6.3
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.61	0.53	0.00	0.00	0.71
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	174	0	280	59	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	4.6	0.0	12.4	2.8	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.6	0.0	12.4	2.8	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1128	0	200	716	0	0	444
V/C Ratio (X)	0.00	0.15	0.00	1.40	0.08	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1128	0	200	716	0	0	444
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	6.1	0.0	32.6	20.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	207.5	0.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.4	0.0	240.0	20.5	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.5	0.0	4.8	1.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	11.5	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.6	0.0	16.3	1.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	2.59	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	74.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

4: 1200 East & SR - 92

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	2216	435	289	1020	2	368	15	217	175	255	682
Future Volume (veh/h)	22	2216	435	289	1020	2	368	15	217	175	255	682
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	2409	473	314	1109	2	400	16	236	190	277	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1412	3892	1208	289	1815	810	367	419	187	241	271	
Arrive On Green	0.41	0.76	0.76	0.16	0.51	0.51	0.11	0.12	0.12	0.07	0.08	0.00
Sat Flow, veh/h	3456	5106	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	24	2409	473	314	1109	2	400	16	236	190	277	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.5	27.6	18.7	21.1	28.9	0.1	13.8	0.5	15.3	7.0	9.9	0.0
Cycle Q Clear(g_c), s	0.5	27.6	18.7	21.1	28.9	0.1	13.8	0.5	15.3	7.0	9.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1412	3892	1208	289	1815	810	367	419	187	241	271	
V/C Ratio(X)	0.02	0.62	0.39	1.09	0.61	0.00	1.09	0.04	1.26	0.79	1.02	
Avail Cap(c_a), veh/h	1412	3892	1208	289	1815	810	367	419	187	362	271	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.9	7.0	10.6	54.5	22.6	26.1	58.1	50.8	57.3	59.5	60.1	0.0
Incr Delay (d2), s/veh	0.0	0.7	1.0	77.8	1.5	0.0	73.5	0.0	153.9	3.4	60.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	7.6	6.6	15.4	11.6	0.0	9.8	0.2	14.1	3.2	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	7.7	11.6	132.3	24.2	26.1	131.6	50.8	211.2	62.9	121.0	0.0
LnGrp LOS	C	A	B	F	C	C	F	D	F	E	F	
Approach Vol, veh/h		2906			1425			652			467	A
Approach Delay, s/veh		8.5			48.0			158.4			97.3	
Approach LOS		A			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	62.0	73.0	15.5	21.5	27.0	108.0	20.0	17.0
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 6.2	5.9	* 7.7	6.2	* 7.1
Max Green Setting (Gmax), s	12.3	* 66	13.6	* 11	21.1	* 60	13.8	* 9.9
Max Q Clear Time (g_c+I1), s	12.5	30.9	9.0	17.3	23.1	29.6	15.8	11.9
Green Ext Time (p_c), s	0.0	4.5	0.0	0.0	0.0	15.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	44.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

4: 1200 East & SR - 92

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	2216	435	289	1020	2	368	15	217	175	255	682
Future Volume (veh/h)	22	2216	435	289	1020	2	368	15	217	175	255	682
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	2409	473	314	1109	2	400	16	236	190	277	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	1412	3892	1208	289	1815	810	367	419	187	241	271	
HCM 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
Prop Arrive On Green	0.41	0.76	0.76	0.16	0.51	0.51	0.11	0.12	0.12	0.07	0.08	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	22.9	7.7	11.6	132.3	24.2	26.1	131.6	50.8	211.2	62.9	121.0	0.0
Ln Grp LOS	C	A	B	F	C	C	F	D	F	E	F	
Approach Vol, veh/h		2906			1425			652			467	
Approach Delay, s/veh		8.5			48.0			158.4			97.3	
Approach LOS		A			D			F			F	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	3	4	5	6	8	7
Case No	3.0	2.0	2.0	3.0	2.0	3.0	3.0	2.0
Phs Duration (G+Y+Rc), s	73.0	62.0	15.5	21.5	27.0	108.0	17.0	20.0
Change Period (Y+Rc), s	* 6.6	7.7	6.4	* 6.2	5.9	* 7.7	* 7.1	6.2
Max Green (Gmax), s	* 66	12.3	13.6	* 11	21.1	* 60	* 9.9	13.8
Max Allow Headway (MAH), s	3.6	1.3	1.6	2.3	1.3	3.5	3.1	1.4
Max Q Clear (g_c+I1), s	30.9	2.5	9.0	17.3	23.1	29.6	11.9	15.8
Green Ext Time (g_e), s	4.5	0.0	0.0	0.0	0.0	15.6	0.0	0.0
Prob of Phs Call (p_c)	1.00	0.58	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt		1	3		5			7
Mvmt Sat Flow, veh/h		3456	3456		1781			3456

Through Movement Data								
Assigned Mvmt	2			4		6	8	
Mvmt Sat Flow, veh/h	3554			3554		5106	3554	

Right-Turn Movement Data								
Assigned Mvmt	12			14		16	18	
Mvmt Sat Flow, veh/h	1585			1585		1585	1585	

Left Lane Group Data								
Assigned Mvmt	0	1	3	0	5	0	0	7
Lane Assignment		L (Prot)	L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	0	2	2	0	1	0	0	2
Grp Vol (v), veh/h	0	24	190	0	314	0	0	400
Grp Sat Flow (s), veh/h/ln	0	1728	1728	0	1781	0	0	1728
Q Serve Time (g_s), s	0.0	0.5	7.0	0.0	21.1	0.0	0.0	13.8
Cycle Q Clear Time (g_c), s	0.0	0.5	7.0	0.0	21.1	0.0	0.0	13.8
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1412	241	0	289	0	0	367
V/C Ratio (X)	0.00	0.02	0.79	0.00	1.09	0.00	0.00	1.09
Avail Cap (c_a), veh/h	0	1412	362	0	289	0	0	367
Upstream Filter (I)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	22.9	59.5	0.0	54.5	0.0	0.0	58.1
Incr Delay (d2), s/veh	0.0	0.0	3.4	0.0	77.8	0.0	0.0	73.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.9	62.9	0.0	132.3	0.0	0.0	131.6
1st-Term Q (Q1), veh/ln	0.0	0.2	3.1	0.0	9.1	0.0	0.0	6.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	6.3	0.0	0.0	3.7
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	3.2	0.0	15.4	0.0	0.0	9.8
%ile Storage Ratio (RQ%)	0.00	0.02	0.35	0.00	1.74	0.00	0.00	0.95
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	6.2	0.0	0.0	8.3
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3
Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	8	0
Lane Assignment	T			T		T	T	
Lanes in Grp	2	0	0	2	0	3	2	0
Grp Vol (v), veh/h	1109	0	0	16	0	2409	277	0
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	28.9	0.0	0.0	0.5	0.0	27.6	9.9	0.0
Cycle Q Clear Time (g_c), s	28.9	0.0	0.0	0.5	0.0	27.6	9.9	0.0
Lane Grp Cap (c), veh/h	1815	0	0	419	0	3892	271	0
V/C Ratio (X)	0.61	0.00	0.00	0.04	0.00	0.62	1.02	0.00
Avail Cap (c_a), veh/h	1815	0	0	419	0	3892	271	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	22.6	0.0	0.0	50.8	0.0	7.0	60.1	0.0
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.0	0.0	0.7	60.9	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	24.2	0.0	0.0	50.8	0.0	7.7	121.0	0.0
1st-Term Q (Q1), veh/ln	11.2	0.0	0.0	0.2	0.0	7.3	4.5	0.0
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.0	0.0	0.3	2.3	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	11.6	0.0	0.0	0.2	0.0	7.6	6.8	0.0
%ile Storage Ratio (RQ%)	0.28	0.00	0.00	0.01	0.00	0.39	0.22	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	18	0
Lane Assignment	R			R		R	R	
Lanes in Grp	1	0	0	1	0	1	1	0
Grp Vol (v), veh/h	2	0	0	236	0	473	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	1585	0
Q Serve Time (g_s), s	0.1	0.0	0.0	15.3	0.0	18.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.1	0.0	0.0	15.3	0.0	18.7	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	810	0	0	187	0	1208	121	0
V/C Ratio (X)	0.00	0.00	0.00	1.26	0.00	0.39	0.00	0.00
Avail Cap (c_a), veh/h	810	0	0	187	0	1208	121	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	26.1	0.0	0.0	57.3	0.0	10.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	153.9	0.0	1.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.1	0.0	0.0	211.2	0.0	11.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.1	0.0	6.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	8.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	14.1	0.0	6.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	1.38	0.00	0.75	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	12.3	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	44.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

5: Center Street/8000 West & SR - 92

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	1197	192	185	759	333	490	111	319	310	99	121
Future Volume (veh/h)	142	1197	192	185	759	333	490	111	319	310	99	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	154	1301	209	201	825	362	533	121	347	337	108	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	1397	623	253	1299	579	587	93	266	354	281	238
Arrive On Green	0.10	0.39	0.39	0.07	0.37	0.37	0.17	0.22	0.22	0.10	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	427	1223	3456	1870	1585
Grp Volume(v), veh/h	154	1301	209	201	825	362	533	0	468	337	108	132
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	0	1650	1728	1870	1585
Q Serve(g_s), s	11.1	45.6	12.0	7.4	24.9	24.4	19.7	0.0	28.3	12.6	6.8	10.0
Cycle Q Clear(g_c), s	11.1	45.6	12.0	7.4	24.9	24.4	19.7	0.0	28.3	12.6	6.8	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.74	1.00		1.00
Lane Grp Cap(c), veh/h	179	1397	623	253	1299	579	587	0	359	354	281	238
V/C Ratio(X)	0.86	0.93	0.34	0.80	0.64	0.62	0.91	0.00	1.30	0.95	0.38	0.55
Avail Cap(c_a), veh/h	269	1397	623	335	1299	579	726	0	359	354	281	238
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.6	37.8	27.6	59.3	34.1	33.9	53.0	0.0	50.9	58.0	49.8	51.2
Incr Delay (d2), s/veh	11.2	12.5	1.5	6.8	2.4	5.0	12.0	0.0	155.2	35.4	0.3	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	21.0	4.8	3.4	10.7	10.2	9.6	0.0	27.2	7.2	3.2	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.8	50.2	29.0	66.1	36.4	38.9	65.0	0.0	206.0	93.4	50.1	52.9
LnGrp LOS	E	D	C	E	D	D	E	A	F	F	D	D
Approach Vol, veh/h		1664			1388			1001			577	
Approach Delay, s/veh		49.3			41.4			130.9			76.0	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.5	54.5	20.0	35.0	16.9	58.1	28.8	26.2
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 26	41.0	* 13	* 28	* 13	48.0	* 27	* 14
Max Q Clear Time (g_c+I1), s	13.1	26.9	14.6	30.3	9.4	47.6	21.7	12.0
Green Ext Time (p_c), s	0.1	3.3	0.0	0.0	0.1	0.3	0.4	0.1

Intersection Summary	
HCM 6th Ctrl Delay	67.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

5: Center Street/8000 West & SR - 92

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	1197	192	185	759	333	490	111	319	310	99	121
Future Volume (veh/h)	142	1197	192	185	759	333	490	111	319	310	99	121
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	154	1301	209	201	825	362	533	121	347	337	108	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	179	1397	623	253	1299	579	587	93	266	354	281	238
HCM 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
Prop Arrive On Green	0.10	0.39	0.39	0.07	0.37	0.37	0.17	0.22	0.22	0.10	0.15	0.15
Unsig. Movement Delay												
Ln Grp Delay, s/veh	68.8	50.2	29.0	66.1	36.4	38.9	65.0	0.0	206.0	93.4	50.1	52.9
Ln Grp LOS	E	D	C	E	D	D	E	A	F	F	D	D
Approach Vol, veh/h		1664			1388			1001			577	
Approach Delay, s/veh		49.3			41.4			130.9			76.0	
Approach LOS		D			D			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	4.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	20.5	54.5	20.0	35.0	16.9	58.1	28.8	26.2
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green (Gmax), s	* 20	41.0	* 13	* 28	* 13	48.0	* 27	* 14
Max Allow Headway (MAH), s	2.2	3.4	2.3	4.5	2.2	3.6	2.2	3.5
Max Q Clear (g_c+I1), s	13.1	26.9	14.6	30.3	9.4	47.6	21.7	12.0
Green Ext Time (g_e), s	0.1	3.3	0.0	0.0	0.1	0.3	0.4	0.1
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	1.00	1.00	0.16	0.00	0.02	1.00

Left-Turn Movement Data				
Assigned Mvmt	1	3	5	7
Mvmt Sat Flow, veh/h	1781	3456	3456	3456

Through Movement Data				
Assigned Mvmt	2	4	6	8
Mvmt Sat Flow, veh/h	3554	427	3554	1870

Right-Turn Movement Data				
Assigned Mvmt	12	14	16	18
Mvmt Sat Flow, veh/h	1585	1223	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	1	0	2	0	2	0	2	0
Grp Vol (v), veh/h	154	0	337	0	201	0	533	0
Grp Sat Flow (s), veh/h/ln	1781	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	11.1	0.0	12.6	0.0	7.4	0.0	19.7	0.0
Cycle Q Clear Time (g_c), s	11.1	0.0	12.6	0.0	7.4	0.0	19.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	179	0	354	0	253	0	587	0
V/C Ratio (X)	0.86	0.00	0.95	0.00	0.80	0.00	0.91	0.00
Avail Cap (c_a), veh/h	269	0	354	0	335	0	726	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	57.6	0.0	58.0	0.0	59.3	0.0	53.0	0.0
Incr Delay (d2), s/veh	11.2	0.0	35.4	0.0	6.8	0.0	12.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	68.8	0.0	93.4	0.0	66.1	0.0	65.0	0.0
1st-Term Q (Q1), veh/ln	4.8	0.0	5.5	0.0	3.2	0.0	8.6	0.0
2nd-Term Q (Q2), veh/ln	0.6	0.0	1.7	0.0	0.2	0.0	1.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	5.4	0.0	7.2	0.0	3.4	0.0	9.6	0.0
%ile Storage Ratio (RQ%)	0.27	0.00	0.92	0.00	0.35	0.00	0.94	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		T
Lanes in Grp	0	2	0	0	0	2	0	1
Grp Vol (v), veh/h	0	825	0	0	0	1301	0	108
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	1870
Q Serve Time (g_s), s	0.0	24.9	0.0	0.0	0.0	45.6	0.0	6.8
Cycle Q Clear Time (g_c), s	0.0	24.9	0.0	0.0	0.0	45.6	0.0	6.8
Lane Grp Cap (c), veh/h	0	1299	0	0	0	1397	0	281
V/C Ratio (X)	0.00	0.64	0.00	0.00	0.00	0.93	0.00	0.38
Avail Cap (c_a), veh/h	0	1299	0	0	0	1397	0	281
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	34.1	0.0	0.0	0.0	37.8	0.0	49.8
Incr Delay (d2), s/veh	0.0	2.4	0.0	0.0	0.0	12.5	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	36.4	0.0	0.0	0.0	50.2	0.0	50.1
1st-Term Q (Q1), veh/ln	0.0	10.3	0.0	0.0	0.0	18.6	0.0	3.2
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	2.4	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	10.7	0.0	0.0	0.0	21.0	0.0	3.2
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.00	0.00	0.50	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	362	0	468	0	209	0	132
Grp Sat Flow (s), veh/h/ln	0	1585	0	1650	0	1585	0	1585
Q Serve Time (g_s), s	0.0	24.4	0.0	28.3	0.0	12.0	0.0	10.0
Cycle Q Clear Time (g_c), s	0.0	24.4	0.0	28.3	0.0	12.0	0.0	10.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.74	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	579	0	359	0	623	0	238
V/C Ratio (X)	0.00	0.62	0.00	1.30	0.00	0.34	0.00	0.55
Avail Cap (c_a), veh/h	0	579	0	359	0	623	0	238
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	33.9	0.0	50.9	0.0	27.6	0.0	51.2
Incr Delay (d2), s/veh	0.0	5.0	0.0	155.2	0.0	1.5	0.0	1.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	38.9	0.0	206.0	0.0	29.0	0.0	52.9
1st-Term Q (Q1), veh/ln	0.0	9.4	0.0	11.7	0.0	4.6	0.0	4.0
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	15.5	0.0	0.3	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	10.2	0.0	27.2	0.0	4.8	0.0	4.1
%ile Storage Ratio (RQ%)	0.00	1.06	0.00	1.47	0.00	0.24	0.00	1.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	27.2	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	67.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

6: SR - 92 & 500 West

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	132	0	1205	164	219	235
Future Volume (veh/h)	132	0	1205	164	219	235
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	0	1310	178	238	255
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	285	0	2282	1018	314	279
Arrive On Green	0.04	0.00	0.64	0.64	0.18	0.18
Sat Flow, veh/h	1781	143	3647	1585	1781	1585
Grp Volume(v), veh/h	143	12.3	1310	178	238	255
Grp Sat Flow(s),veh/h/ln	1781	B	1777	1585	1781	1585
Q Serve(g_s), s	3.6		27.2	5.9	16.5	20.5
Cycle Q Clear(g_c), s	3.6		27.2	5.9	16.5	20.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	285		2282	1018	314	279
V/C Ratio(X)	0.50		0.57	0.17	0.76	0.91
Avail Cap(c_a), veh/h	387		2282	1018	411	366
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8		13.2	9.4	50.9	52.6
Incr Delay (d2), s/veh	0.5		1.1	0.4	3.9	19.8
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2		9.8	1.9	7.7	9.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.3		14.2	9.7	54.8	72.4
LnGrp LOS	B		B	A	D	E
Approach Vol, veh/h			1488		493	
Approach Delay, s/veh			13.7		63.9	
Approach LOS			B		E	

Timer - Assigned Phs	1	2	8
Phs Duration (G+Y+Rc), s	11.6	89.5	28.9
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	13.6	69.0	30.0
Max Q Clear Time (g_c+I1), s	5.6	29.2	22.5
Green Ext Time (p_c), s	0.1	4.9	0.4

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

6: SR - 92 & 500 West

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	132	0	1205	164	219	235
Future Volume (veh/h)	132	0	1205	164	219	235
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	0	1310	178	238	255
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	285	0	2282	1018	314	279
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.00	0.64	0.64	0.18	0.18
Unsig. Movement Delay						
Ln Grp Delay, s/veh	12.3	0.0	14.2	9.7	54.8	72.4
Ln Grp LOS	B	A	B	A	D	E
Approach Vol, veh/h		143	1488		493	
Approach Delay, s/veh		12.3	13.7		63.9	
Approach LOS		B	B		E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	11.6	89.5	28.9					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	69.0	30.0					
Max Allow Headway (MAH), s	2.2	3.2	2.4					
Max Q Clear (g_c+I1), s	5.6	29.2	22.5					
Green Ext Time (g_e), s	0.1	4.9	0.4					
Prob of Phs Call (p_c)	0.99	1.00	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.01					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	143	0	238	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	3.6	0.0	16.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.6	0.0	16.5	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	354	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	83.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	56.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	18.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	83.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	285	0	314	0	0	0	0	0
V/C Ratio (X)	0.50	0.00	0.76	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	387	0	411	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	11.8	0.0	50.9	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	3.9	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	12.3	0.0	54.8	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.2	0.0	7.4	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.2	0.0	7.7	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.11	0.00	0.45	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1310	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	27.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	27.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2282	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2282	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	178	255	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	5.9	20.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.9	20.5	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1018	279	0	0	0	0	0
V/C Ratio (X)	0.00	0.17	0.91	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1018	366	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.4	52.6	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	19.8	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.7	72.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.8	8.2	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	1.5	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.9	9.7	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.45	0.57	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		25.3						
HCM 6th LOS		C						

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	10	148	123	1	1	26	186	83	0	342	27
Future Vol, veh/h	25	10	148	123	1	1	26	186	83	0	342	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	11	161	134	1	1	28	202	90	0	372	29

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	545	735	201	495	704	146	401	0	0	292	0	0
Stage 1	387	387	-	303	303	-	-	-	-	-	-	-
Stage 2	158	348	-	192	401	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	421	345	806	457	360	875	1154	-	-	1267	-	-
Stage 1	608	608	-	681	662	-	-	-	-	-	-	-
Stage 2	828	633	-	791	599	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	412	337	806	350	351	875	1154	-	-	1267	-	-
Mov Cap-2 Maneuver	412	337	-	350	351	-	-	-	-	-	-	-
Stage 1	593	608	-	665	646	-	-	-	-	-	-	-
Stage 2	806	618	-	622	599	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	21.4	0.7	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1154	-	-	412	741	350	501	1267	-	-
HCM Lane V/C Ratio	0.024	-	-	0.066	0.232	0.382	0.004	-	-	-
HCM Control Delay (s)	8.2	-	-	14.4	11.3	21.5	12.2	0	-	-
HCM Lane LOS	A	-	-	B	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.9	1.7	0	0	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	151	60	119	0	1	251
Future Vol, veh/h	151	60	119	0	1	251
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	164	65	129	0	1	273

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	129	0	-	0	490	65
Stage 1	-	-	-	-	129	-
Stage 2	-	-	-	-	361	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1454	-	-	-	507	986
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	676	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1454	-	-	-	450	986
Mov Cap-2 Maneuver	-	-	-	-	450	-
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	676	-

Approach	EB	WB	SB
HCM Control Delay, s	5.6	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1454	-	-	-	981
HCM Lane V/C Ratio	0.113	-	-	-	0.279
HCM Control Delay (s)	7.8	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1.1

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	1	30	145	2	1	11	68	73	0	77	1
Future Vol, veh/h	7	1	30	145	2	1	11	68	73	0	77	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	1	33	158	2	1	12	74	79	0	84	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	224	262	85	240	223	114	85	0	0	153	0	0
Stage 1	85	85	-	138	138	-	-	-	-	-	-	-
Stage 2	139	177	-	102	85	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	732	643	974	714	676	939	1512	-	-	1428	-	-
Stage 1	923	824	-	865	782	-	-	-	-	-	-	-
Stage 2	864	753	-	904	824	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	725	637	974	685	670	939	1512	-	-	1428	-	-
Mov Cap-2 Maneuver	725	637	-	685	670	-	-	-	-	-	-	-
Stage 1	915	824	-	857	775	-	-	-	-	-	-	-
Stage 2	853	746	-	873	824	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	11.8	0.5	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1512	-	-	904	686	1428	-	-
HCM Lane V/C Ratio	0.008	-	-	0.046	0.235	-	-	-
HCM Control Delay (s)	7.4	0	-	9.2	11.8	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.9	0	-	-

1: Highland Blvd & Grant Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	78	32	0	6	21	391	49	2	339	1
Future Volume (veh/h)	4	0	78	32	0	6	21	391	49	2	339	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	0	85	35	0	7	23	425	53	2	368	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	2	183	425	4	31	170	603	73	717	712	2
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	54	17	1510	1250	36	257	37	1578	191	916	1864	5
Grp Volume(v), veh/h	89	0	0	42	0	0	501	0	0	2	0	369
Grp Sat Flow(s),veh/h/ln	1581	0	0	1543	0	0	1805	0	0	916	0	1869
Q Serve(g_s), s	0.6	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	3.7
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.5	0.0	0.0	5.6	0.0	0.0	0.0	0.0	3.7
Prop In Lane	0.04		0.96	0.83		0.17	0.05		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	347	0	0	460	0	0	846	0	0	717	0	714
V/C Ratio(X)	0.26	0.00	0.00	0.09	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.52
Avail Cap(c_a), veh/h	2179	0	0	2031	0	0	2147	0	0	1392	0	2090
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.9	0.0	0.0	9.6	0.0	0.0	6.3	0.0	0.0	4.6	0.0	5.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.1	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.0	0.0	0.0	9.6	0.0	0.0	6.6	0.0	0.0	4.6	0.0	6.0
LnGrp LOS	B	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		89			42			501			371	
Approach Delay, s/veh		10.0			9.6			6.6			6.0	
Approach LOS		B			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	15.2	8.9	15.2	8.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	27.0	31.0	27.0	31.0
Max Q Clear Time (g_c+I1), s	7.6	3.3	5.7	2.5
Green Ext Time (p_c), s	1.6	0.2	1.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	78	32	0	6	21	391	49	2	339	1
Future Volume (veh/h)	4	0	78	32	0	6	21	391	49	2	339	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	0	85	35	0	7	23	425	53	2	368	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	162	2	183	425	4	31	170	603	73	717	712	2
HCM 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
Prop Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.38	0.38	0.38	0.38	0.38	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	10.0	0.0	0.0	9.6	0.0	0.0	6.6	0.0	0.0	4.6	0.0	6.0
Ln Grp LOS	B	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		89			42			501			371	
Approach Delay, s/veh		10.0			9.6			6.6			6.0	
Approach LOS		B			A			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		8.0		6.0		8.0
Phs Duration (G+Y+Rc), s		15.2		8.9		15.2		8.9
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		27.0		31.0		27.0		31.0
Max Allow Headway (MAH), s		3.8		4.1		3.7		4.0
Max Q Clear (g_c+I1), s		7.6		3.3		5.7		2.5
Green Ext Time (g_e), s		1.6		0.2		1.1		0.1
Prob of Phs Call (p_c)		1.00		0.58		1.00		0.58
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		37		54		916		1250
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1578		17		1864		36
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		191		1510		5		257
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R		L+T+R		L		L+T+R

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	501	0	89	0	2	0	42
Grp Sat Flow (s), veh/h/ln	0	1805	0	1581	0	916	0	1543
Q Serve Time (g_s), s	0.0	0.6	0.0	0.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.6	0.0	1.3	0.0	0.0	0.0	0.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1029	0	1431	0	916	0	1333
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1866	0	1212	0	1796
Perm LT Eff Green (g_p), s	0.0	9.2	0.0	2.9	0.0	9.2	0.0	2.9
Perm LT Serve Time (g_u), s	0.0	5.6	0.0	2.4	0.0	3.6	0.0	1.7
Perm LT Q Serve Time (g_ps), s	0.0	0.6	0.0	0.6	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	5.1	0.0	0.7	0.0	0.0	0.0	0.1
Serve Time pre Blk (g_fs), s	0.0	5.1	0.0	0.7	0.0	0.0	0.0	0.1
Prop LT Inside Lane (P_L)	0.00	0.05	0.00	0.04	0.00	1.00	0.00	0.83
Lane Grp Cap (c), veh/h	0	846	0	347	0	717	0	460
V/C Ratio (X)	0.00	0.59	0.00	0.26	0.00	0.00	0.00	0.09
Avail Cap (c_a), veh/h	0	2147	0	2179	0	1392	0	2031
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	6.3	0.0	9.9	0.0	4.6	0.0	9.6
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.6	0.0	10.0	0.0	4.6	0.0	9.6
1st-Term Q (Q1), veh/ln	0.0	0.9	0.0	0.3	0.0	0.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.0	0.3	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.03	0.00	0.00	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment						T+R		
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	369	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1869	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.11	0.00	0.96	0.00	0.00	0.00	0.17
Lane Grp Cap (c), veh/h	0	0	0	0	0	714	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	2090	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

2: Highland Blvd & 11800 North

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	128	260	0	150	39	259	22	141	347	6
Future Volume (veh/h)	7	0	128	260	0	150	39	259	22	141	347	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	139	283	0	163	42	282	24	153	377	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	523	0	549	545	0	549	354	628	532	425	615	11
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.35	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1223	0	1585	1250	0	1585	999	1870	1585	1073	1830	34
Grp Volume(v), veh/h	8	0	139	283	0	163	42	282	24	153	0	384
Grp Sat Flow(s),veh/h/ln	1223	0	1585	1250	0	1585	999	1870	1585	1073	0	1864
Q Serve(g_s), s	0.2	0.0	2.4	7.9	0.0	2.8	1.4	4.5	0.4	4.9	0.0	6.5
Cycle Q Clear(g_c), s	3.0	0.0	2.4	10.3	0.0	2.8	7.9	4.5	0.4	9.4	0.0	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	523	0	549	545	0	549	354	628	532	425	0	626
V/C Ratio(X)	0.02	0.00	0.25	0.52	0.00	0.30	0.12	0.45	0.05	0.36	0.00	0.61
Avail Cap(c_a), veh/h	1104	0	1302	1139	0	1302	734	1338	1134	832	0	1334
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.1	0.0	8.8	12.5	0.0	9.0	13.8	9.8	8.5	13.5	0.0	10.5
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.1	0.1	0.2	0.0	0.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	1.7	0.0	0.7	0.3	1.4	0.1	1.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	0.0	8.9	12.8	0.0	9.1	13.8	10.0	8.5	13.7	0.0	10.8
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		147			446			348			537	
Approach Delay, s/veh		9.0			11.5			10.3			11.6	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	18.7	19.1	18.7	19.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	27.0	31.0	27.0	31.0
Max Q Clear Time (g_c+I1), s	9.9	5.0	11.4	12.3
Green Ext Time (p_c), s	0.8	0.4	1.3	0.8

Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

2: Highland Blvd & 11800 North

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	128	260	0	150	39	259	22	141	347	6
Future Volume (veh/h)	7	0	128	260	0	150	39	259	22	141	347	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	139	283	0	163	42	282	24	153	377	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	523	0	549	545	0	549	354	628	532	425	615	11
HCM 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
Prop Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.35	0.34	0.34	0.34	0.34	0.34	0.34
Unsig. Movement Delay												
Ln Grp Delay, s/veh	10.1	0.0	8.9	12.8	0.0	9.1	13.8	10.0	8.5	13.7	0.0	10.8
Ln Grp LOS	B	A	A	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		147			446			348			537	
Approach Delay, s/veh		9.0			11.5			10.3			11.6	
Approach LOS		A			B			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		18.7		19.1		18.7		19.1
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		27.0		31.0		27.0		31.0
Max Allow Headway (MAH), s		3.6		4.0		3.6		3.1
Max Q Clear (g_c+I1), s		9.9		5.0		11.4		12.3
Green Ext Time (g_e), s		0.8		0.4		1.3		0.8
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		999		1223		1073		1250
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		0		1830		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		34		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	42	0	8	0	153	0	283
Grp Sat Flow (s), veh/h/ln	0	999	0	1223	0	1073	0	1250
Q Serve Time (g_s), s	0.0	1.4	0.0	0.2	0.0	4.9	0.0	7.9
Cycle Q Clear Time (g_c), s	0.0	7.9	0.0	3.0	0.0	9.4	0.0	10.3
Perm LT Sat Flow (s_l), veh/h/ln	0	999	0	1223	0	1073	0	1250
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	12.7	0.0	13.1	0.0	12.7	0.0	13.1
Perm LT Serve Time (g_u), s	0.0	6.2	0.0	10.2	0.0	8.2	0.0	10.7
Perm LT Q Serve Time (g_ps), s	0.0	1.4	0.0	0.2	0.0	4.9	0.0	7.9
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	354	0	523	0	425	0	545
V/C Ratio (X)	0.00	0.12	0.00	0.02	0.00	0.36	0.00	0.52
Avail Cap (c_a), veh/h	0	734	0	1104	0	832	0	1139
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.8	0.0	10.1	0.0	13.5	0.0	12.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.8	0.0	10.1	0.0	13.7	0.0	12.8
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	0.0	0.0	0.9	0.0	1.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	0.0	0.0	1.0	0.0	1.7
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.01	0.00	0.25	0.00	0.44
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T						
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	282	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	628	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1338	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	24	0	139	0	384	0	163
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1864	0	1585
Q Serve Time (g_s), s	0.0	0.4	0.0	2.4	0.0	6.5	0.0	2.8
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	2.4	0.0	6.5	0.0	2.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	532	0	549	0	626	0	549
V/C Ratio (X)	0.00	0.05	0.00	0.25	0.00	0.61	0.00	0.30
Avail Cap (c_a), veh/h	0	1134	0	1302	0	1334	0	1302
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.5	0.0	8.8	0.0	10.5	0.0	9.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.5	0.0	8.9	0.0	10.8	0.0	9.1
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.6	0.0	2.0	0.0	0.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.6	0.0	2.0	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.04	0.00	0.03	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	1129	51	192	841	87	73	93	102	151	103	254
Future Volume (veh/h)	246	1129	51	192	841	87	73	93	102	151	103	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	267	1227	55	209	914	95	79	101	0	164	112	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	765	2558	794	274	1233	550	176	288		237	392	
Arrive On Green	0.22	0.50	0.50	0.08	0.35	0.35	0.08	0.08	0.00	0.07	0.21	0.00
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	1281	3554	1585	3456	1870	1585
Grp Volume(v), veh/h	267	1227	55	209	914	95	79	101	0	164	112	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1281	1777	1585	1728	1870	1585
Q Serve(g_s), s	6.5	15.8	1.8	5.9	22.6	2.9	6.0	2.7	0.0	4.6	5.0	0.0
Cycle Q Clear(g_c), s	6.5	15.8	1.8	5.9	22.6	2.9	6.0	2.7	0.0	4.6	5.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	765	2558	794	274	1233	550	176	288		237	392	
V/C Ratio(X)	0.35	0.48	0.07	0.76	0.74	0.17	0.45	0.35		0.69	0.29	
Avail Cap(c_a), veh/h	765	2558	794	480	1233	550	205	370		484	569	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.8	16.4	12.9	45.1	28.7	10.8	45.0	43.5	0.0	45.6	33.2	0.0
Incr Delay (d2), s/veh	0.1	0.6	0.2	1.7	4.0	0.7	0.7	0.3	0.0	3.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.6	0.6	2.5	9.5	1.6	1.9	1.2	0.0	2.1	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	17.0	13.1	46.8	32.7	11.5	45.7	43.7	0.0	49.2	33.4	0.0
LnGrp LOS	C	B	B	D	C	B	D	D		D	C	
Approach Vol, veh/h		1549			1218			180	A		276	A
Approach Delay, s/veh		19.6			33.5			44.6			42.8	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	29.4	42.0	12.8	15.7	14.0	57.4		28.6
Change Period (Y+Rc), s	* 7.3	* 7.3	6.0	7.6	6.1	* 7.3		7.6
Max Green Setting (Gmax), s	* 14	* 35	14.0	10.4	13.9	* 35		30.4
Max Q Clear Time (g_c+I1), s	8.5	24.6	6.6	8.0	7.9	17.8		7.0
Green Ext Time (p_c), s	0.2	2.7	0.3	0.1	0.0	4.6		0.2

Intersection Summary	
HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	1129	51	192	841	87	73	93	102	151	103	254
Future Volume (veh/h)	246	1129	51	192	841	87	73	93	102	151	103	254
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	267	1227	55	209	914	95	79	101	0	164	112	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	765	2558	794	274	1233	550	176	288		237	392	
HCM 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
Prop Arrive On Green	0.22	0.50	0.50	0.08	0.35	0.35	0.08	0.08	0.00	0.07	0.21	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	32.9	17.0	13.1	46.8	32.7	11.5	45.7	43.7	0.0	49.2	33.4	0.0
Ln Grp LOS	C	B	B	D	C	B	D	D		D	C	
Approach Vol, veh/h		1549			1218			180			276	
Approach Delay, s/veh		19.6			33.5			44.6			42.8	
Approach LOS		B			C			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	3	4	5	6		8
Case No	3.0	2.0	2.0	5.3	2.0	3.0		3.0
Phs Duration (G+Y+Rc), s	42.0	29.4	12.8	15.7	14.0	57.4		28.6
Change Period (Y+Rc), s	* 7.3	* 7.3	6.0	7.6	6.1	* 7.3		7.6
Max Green (Gmax), s	* 35	* 14	14.0	10.4	13.9	* 35		30.4
Max Allow Headway (MAH), s	3.5	2.5	3.8	2.9	1.3	3.6		3.4
Max Q Clear (g_c+I1), s	24.6	8.5	6.6	8.0	7.9	17.8		7.0
Green Ext Time (g_e), s	2.7	0.2	0.3	0.1	0.0	4.6		0.2
Prob of Phs Call (p_c)	1.00	1.00	0.99	1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.00	0.03	0.03	1.00	0.00	0.00		0.00

Left-Turn Movement Data					
Assigned Mvmt		1	3	7	5
Mvmt Sat Flow, veh/h		3456	3456	1281	3456

Through Movement Data				
Assigned Mvmt	2		4		6		8
Mvmt Sat Flow, veh/h	3554		3554		5106		1870

Right-Turn Movement Data				
Assigned Mvmt	12		14		16		18
Mvmt Sat Flow, veh/h	1585		1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	0	1	3	7	5	0	0	0
Lane Assignment		L (Prot)	L (Prot)	L	L (Prot)			

Lanes in Grp	0	2	2	1	2	0	0	0
Grp Vol (v), veh/h	0	267	164	79	209	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1728	1728	1281	1728	0	0	0
Q Serve Time (g_s), s	0.0	6.5	4.6	6.0	5.9	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	6.5	4.6	6.0	5.9	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1281	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	8.1	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	8.1	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	765	237	176	274	0	0	0
V/C Ratio (X)	0.00	0.35	0.69	0.45	0.76	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	765	484	205	480	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	32.8	45.6	45.0	45.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	3.6	0.7	1.7	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	32.9	49.2	45.7	46.8	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.6	2.0	1.9	2.4	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.6	2.1	1.9	2.5	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.15	0.24	0.31	0.23	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	0	8
Lane Assignment	T			T		T		T
Lanes in Grp	2	0	0	2	0	3	0	1
Grp Vol (v), veh/h	914	0	0	101	0	1227	0	112
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	0	1870
Q Serve Time (g_s), s	22.6	0.0	0.0	2.7	0.0	15.8	0.0	5.0
Cycle Q Clear Time (g_c), s	22.6	0.0	0.0	2.7	0.0	15.8	0.0	5.0
Lane Grp Cap (c), veh/h	1233	0	0	288	0	2558	0	392
V/C Ratio (X)	0.74	0.00	0.00	0.35	0.00	0.48	0.00	0.29
Avail Cap (c_a), veh/h	1233	0	0	370	0	2558	0	569
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	28.7	0.0	0.0	43.5	0.0	16.4	0.0	33.2
Incr Delay (d2), s/veh	4.0	0.0	0.0	0.3	0.0	0.6	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	32.7	0.0	0.0	43.7	0.0	17.0	0.0	33.4
1st-Term Q (Q1), veh/ln	8.8	0.0	0.0	1.2	0.0	5.4	0.0	2.3
2nd-Term Q (Q2), veh/ln	0.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	9.5	0.0	0.0	1.2	0.0	5.6	0.0	2.3
%ile Storage Ratio (RQ%)	0.19	0.00	0.00	0.05	0.00	0.12	0.00	0.27
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	0	18
Lane Assignment	R			R		R		R
Lanes in Grp	1	0	0	1	0	1	0	1
Grp Vol (v), veh/h	95	0	0	0	0	55	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	2.9	0.0	0.0	0.0	0.0	1.8	0.0	0.0
Cycle Q Clear Time (g_c), s	2.9	0.0	0.0	0.0	0.0	1.8	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	550	0	0	129	0	794	0	332
V/C Ratio (X)	0.17	0.00	0.00	0.00	0.00	0.07	0.00	0.00
Avail Cap (c_a), veh/h	550	0	0	165	0	794	0	482
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	10.8	0.0	0.0	0.0	0.0	12.9	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	11.5	0.0	0.0	0.0	0.0	13.1	0.0	0.0
1st-Term Q (Q1), veh/ln	1.5	0.0	0.0	0.0	0.0	0.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	1.6	0.0	0.0	0.0	0.0	0.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.15	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1108	315	395	663	10	429	57	159	28	135	108
Future Volume (veh/h)	63	1108	315	395	663	10	429	57	159	28	135	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1204	342	429	721	11	466	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	574	1822	565	492	1222	545	528	653	291	98	217	
Arrive On Green	0.17	0.36	0.36	0.14	0.34	0.34	0.15	0.18	0.18	0.03	0.06	0.00
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	68	1204	342	429	721	11	466	62	173	30	147	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.7	19.8	17.7	12.2	16.7	0.3	13.2	1.4	10.0	0.9	4.1	0.0
Cycle Q Clear(g_c), s	1.7	19.8	17.7	12.2	16.7	0.3	13.2	1.4	10.0	0.9	4.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	574	1822	565	492	1222	545	528	653	291	98	217	
V/C Ratio(X)	0.12	0.66	0.60	0.87	0.59	0.02	0.88	0.09	0.59	0.31	0.68	
Avail Cap(c_a), veh/h	574	1822	565	598	1222	545	615	653	291	470	281	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.5	27.1	26.4	42.0	27.0	12.5	41.5	33.9	37.4	47.6	46.0	0.0
Incr Delay (d2), s/veh	0.0	1.9	4.7	10.2	2.1	0.1	11.6	0.0	2.3	0.7	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	7.7	7.3	5.6	6.9	0.2	6.4	0.6	4.0	0.4	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	29.0	31.1	52.2	29.1	12.5	53.0	33.9	39.7	48.3	48.1	0.0
LnGrp LOS	D	C	C	D	C	B	D	C	D	D	D	
Approach Vol, veh/h		1614			1161			701			177	A
Approach Delay, s/veh		29.7			37.5			48.0			48.1	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.3	41.0	9.2	25.5	21.9	43.4	21.5	13.2
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 7.1	* 7.7	* 7.7	* 6.2	7.1
Max Green Setting (Gmax), s	12.3	* 34	13.6	* 13	* 17	* 30	* 18	7.9
Max Q Clear Time (g_c+I1), s	13.7	18.7	2.9	12.0	14.2	21.8	15.2	6.1
Green Ext Time (p_c), s	0.0	2.3	0.0	0.0	0.1	3.4	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	36.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1108	315	395	663	10	429	57	159	28	135	108
Future Volume (veh/h)	63	1108	315	395	663	10	429	57	159	28	135	108
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1204	342	429	721	11	466	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	574	1822	565	492	1222	545	528	653	291	98	217	
HCM 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
Prop Arrive On Green	0.17	0.36	0.36	0.14	0.34	0.34	0.15	0.18	0.18	0.03	0.06	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	35.5	29.0	31.1	52.2	29.1	12.5	53.0	33.9	39.7	48.3	48.1	0.0
Ln Grp LOS	D	C	C	D	C	B	D	C	D	D	D	
Approach Vol, veh/h		1614			1161			701			177	
Approach Delay, s/veh		29.7			37.5			48.0			48.1	
Approach LOS		C			D			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	3	4	5	6	7	8
Case No	3.0	2.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	41.0	24.3	9.2	25.5	21.9	43.4	21.5	13.2
Change Period (Y+Rc), s	* 6.6	7.7	6.4	* 7.1	* 7.7	* 7.7	* 6.2	7.1
Max Green (Gmax), s	* 34	12.3	13.6	* 13	* 17	* 30	* 18	7.9
Max Allow Headway (MAH), s	3.6	1.3	1.6	2.6	1.3	3.4	1.4	3.1
Max Q Clear (g_c+I1), s	18.7	3.7	2.9	12.0	14.2	21.8	15.2	6.1
Green Ext Time (g_e), s	2.3	0.0	0.0	0.0	0.1	3.4	0.1	0.1
Prob of Phs Call (p_c)	1.00	0.85	0.57	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	0.01	0.00	0.06	1.00

Left-Turn Movement Data								
Assigned Mvmt		1	3		5		7	
Mvmt Sat Flow, veh/h		3456	3456		3456		3456	

Through Movement Data								
Assigned Mvmt	2			4		6		8
Mvmt Sat Flow, veh/h	3554			3554		5106		3554

Right-Turn Movement Data								
Assigned Mvmt	12			14		16		18
Mvmt Sat Flow, veh/h	1585			1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	0	1	3	0	5	0	7	0
Lane Assignment		L (Prot)	L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	0	2	2	0	2	0	2	0
Grp Vol (v), veh/h	0	68	30	0	429	0	466	0
Grp Sat Flow (s), veh/h/ln	0	1728	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	0.0	1.7	0.9	0.0	12.2	0.0	13.2	0.0
Cycle Q Clear Time (g_c), s	0.0	1.7	0.9	0.0	12.2	0.0	13.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	574	98	0	492	0	528	0
V/C Ratio (X)	0.00	0.12	0.31	0.00	0.87	0.00	0.88	0.00
Avail Cap (c_a), veh/h	0	574	470	0	598	0	615	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	35.5	47.6	0.0	42.0	0.0	41.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.0	10.2	0.0	11.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	35.5	48.3	0.0	52.2	0.0	53.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.7	0.4	0.0	4.9	0.0	5.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.7	0.0	0.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.4	0.0	5.6	0.0	6.4	0.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.04	0.00	0.63	0.00	0.63	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	0	8
Lane Assignment	T			T		T		T
Lanes in Grp	2	0	0	2	0	3	0	2
Grp Vol (v), veh/h	721	0	0	62	0	1204	0	147
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	0	1777
Q Serve Time (g_s), s	16.7	0.0	0.0	1.4	0.0	19.8	0.0	4.1
Cycle Q Clear Time (g_c), s	16.7	0.0	0.0	1.4	0.0	19.8	0.0	4.1
Lane Grp Cap (c), veh/h	1222	0	0	653	0	1822	0	217
V/C Ratio (X)	0.59	0.00	0.00	0.09	0.00	0.66	0.00	0.68
Avail Cap (c_a), veh/h	1222	0	0	653	0	1822	0	281
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	27.0	0.0	0.0	33.9	0.0	27.1	0.0	46.0
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.0	0.0	1.9	0.0	2.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	29.1	0.0	0.0	33.9	0.0	29.0	0.0	48.1
1st-Term Q (Q1), veh/ln	6.5	0.0	0.0	0.6	0.0	7.4	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.0	0.0	0.3	0.0	0.1

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	6.9	0.0	0.0	0.6	0.0	7.7	0.0	1.8
%ile Storage Ratio (RQ%)	0.16	0.00	0.00	0.03	0.00	0.42	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	0	18
Lane Assignment	R			R		R		R
Lanes in Grp	1	0	0	1	0	1	0	1
Grp Vol (v), veh/h	11	0	0	173	0	342	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.3	0.0	0.0	10.0	0.0	17.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.3	0.0	0.0	10.0	0.0	17.7	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	545	0	0	291	0	565	0	97
V/C Ratio (X)	0.02	0.00	0.00	0.59	0.00	0.60	0.00	0.00
Avail Cap (c_a), veh/h	545	0	0	291	0	565	0	125
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	12.5	0.0	0.0	37.4	0.0	26.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	2.3	0.0	4.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	12.5	0.0	0.0	39.7	0.0	31.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.2	0.0	0.0	3.8	0.0	6.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.7	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.2	0.0	0.0	4.0	0.0	7.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.02	0.00	0.00	0.39	0.00	0.82	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	36.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	877	280	168	625	305	344	100	162	354	112	136
Future Volume (veh/h)	107	877	280	168	625	305	344	100	162	354	112	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	953	304	183	679	332	374	109	0	385	122	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	178	1401	625	250	1475	658	437	235		450	241	204
Arrive On Green	0.05	0.39	0.39	0.07	0.42	0.42	0.13	0.13	0.00	0.13	0.13	0.13
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	116	953	304	183	679	332	374	109	0	385	122	148
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	3.3	22.2	14.4	5.2	13.8	15.5	10.6	5.4	0.0	10.9	6.1	9.0
Cycle Q Clear(g_c), s	3.3	22.2	14.4	5.2	13.8	15.5	10.6	5.4	0.0	10.9	6.1	9.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	178	1401	625	250	1475	658	437	235		450	241	204
V/C Ratio(X)	0.65	0.68	0.49	0.73	0.46	0.50	0.86	0.46		0.86	0.51	0.72
Avail Cap(c_a), veh/h	435	1401	625	435	1475	658	460	249		494	267	227
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.6	25.1	22.7	45.4	21.1	21.6	42.8	40.6	0.0	42.6	40.6	41.8
Incr Delay (d2), s/veh	1.5	2.7	2.7	1.6	1.0	2.8	13.3	0.5	0.0	12.0	0.6	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	9.0	5.7	2.2	5.4	6.1	5.3	2.5	0.0	5.4	2.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.1	27.8	25.4	47.0	22.2	24.4	56.1	41.1	0.0	54.5	41.2	49.7
LnGrp LOS	D	C	C	D	C	C	E	D		D	D	D
Approach Vol, veh/h		1373			1194			483	A		655	
Approach Delay, s/veh		29.0			26.6			52.7			51.0	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	48.5	19.7	19.2	14.6	46.4	19.3	19.6
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 13	32.0	* 14	* 13	* 13	32.0	* 13	* 14
Max Q Clear Time (g_c+I1), s	5.3	17.5	12.9	7.4	7.2	24.2	12.6	11.0
Green Ext Time (p_c), s	0.1	2.7	0.1	0.1	0.1	2.8	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	35.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	877	280	168	625	305	344	100	162	354	112	136
Future Volume (veh/h)	107	877	280	168	625	305	344	100	162	354	112	136
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	953	304	183	679	332	374	109	0	385	122	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	178	1401	625	250	1475	658	437	235		450	241	204
HCM 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
Prop Arrive On Green	0.05	0.39	0.39	0.07	0.42	0.42	0.13	0.13	0.00	0.13	0.13	0.13
Unsig. Movement Delay												
Ln Grp Delay, s/veh	48.1	27.8	25.4	47.0	22.2	24.4	56.1	41.1	0.0	54.5	41.2	49.7
Ln Grp LOS	D	C	C	D	C	C	E	D		D	D	D
Approach Vol, veh/h		1373			1194			483			655	
Approach Delay, s/veh		29.0			26.6			52.7			51.0	
Approach LOS		C			C			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	12.5	48.5	19.7	19.2	14.6	46.4	19.3	19.6
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green (Gmax), s	* 13	32.0	* 14	* 13	* 13	32.0	* 13	* 14
Max Allow Headway (MAH), s	2.2	3.4	2.3	3.7	2.2	3.5	2.2	3.5
Max Q Clear (g_c+I1), s	5.3	17.5	12.9	7.4	7.2	24.2	12.6	11.0
Green Ext Time (g_e), s	0.1	2.7	0.1	0.1	0.1	2.8	0.0	0.2
Prob of Phs Call (p_c)	0.96	1.00	1.00	0.95	0.99	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	1.00	0.10	0.00	0.00	1.00	1.00

Left-Turn Movement Data				
Assigned Mvmt	1	3	5	7
Mvmt Sat Flow, veh/h	3456	3456	3456	3456

Through Movement Data				
Assigned Mvmt	2	4	6	8
Mvmt Sat Flow, veh/h	3554	1870	3554	1870

Right-Turn Movement Data				
Assigned Mvmt	12	14	16	18
Mvmt Sat Flow, veh/h	1585	1585	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	2	0	2	0	2	0	2	0
Grp Vol (v), veh/h	116	0	385	0	183	0	374	0
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	3.3	0.0	10.9	0.0	5.2	0.0	10.6	0.0
Cycle Q Clear Time (g_c), s	3.3	0.0	10.9	0.0	5.2	0.0	10.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	178	0	450	0	250	0	437	0
V/C Ratio (X)	0.65	0.00	0.86	0.00	0.73	0.00	0.86	0.00
Avail Cap (c_a), veh/h	435	0	494	0	435	0	460	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	46.6	0.0	42.6	0.0	45.4	0.0	42.8	0.0
Incr Delay (d2), s/veh	1.5	0.0	12.0	0.0	1.6	0.0	13.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	48.1	0.0	54.5	0.0	47.0	0.0	56.1	0.0
1st-Term Q (Q1), veh/ln	1.4	0.0	4.6	0.0	2.1	0.0	4.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.7	0.0	0.1	0.0	0.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.4	0.0	5.4	0.0	2.2	0.0	5.3	0.0
%ile Storage Ratio (RQ%)	0.07	0.00	0.68	0.00	0.23	0.00	0.52	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	679	0	109	0	953	0	122
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	13.8	0.0	5.4	0.0	22.2	0.0	6.1
Cycle Q Clear Time (g_c), s	0.0	13.8	0.0	5.4	0.0	22.2	0.0	6.1
Lane Grp Cap (c), veh/h	0	1475	0	235	0	1401	0	241
V/C Ratio (X)	0.00	0.46	0.00	0.46	0.00	0.68	0.00	0.51
Avail Cap (c_a), veh/h	0	1475	0	249	0	1401	0	267
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.1	0.0	40.6	0.0	25.1	0.0	40.6
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.5	0.0	2.7	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.2	0.0	41.1	0.0	27.8	0.0	41.2
1st-Term Q (Q1), veh/ln	0.0	5.2	0.0	2.5	0.0	8.5	0.0	2.8
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.4	0.0	2.5	0.0	9.0	0.0	2.8
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.14	0.00	0.21	0.00	0.22
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	332	0	0	0	304	0	148
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	15.5	0.0	0.0	0.0	14.4	0.0	9.0
Cycle Q Clear Time (g_c), s	0.0	15.5	0.0	0.0	0.0	14.4	0.0	9.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	658	0	199	0	625	0	204
V/C Ratio (X)	0.00	0.50	0.00	0.00	0.00	0.49	0.00	0.72
Avail Cap (c_a), veh/h	0	658	0	211	0	625	0	227
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.6	0.0	0.0	0.0	22.7	0.0	41.8
Incr Delay (d2), s/veh	0.0	2.8	0.0	0.0	0.0	2.7	0.0	7.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.4	0.0	0.0	0.0	25.4	0.0	49.7
1st-Term Q (Q1), veh/ln	0.0	5.6	0.0	0.0	0.0	5.2	0.0	3.5
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.1	0.0	0.0	0.0	5.7	0.0	3.9
%ile Storage Ratio (RQ%)	0.00	0.63	0.00	0.00	0.00	0.28	0.00	1.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	35.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

6: SR - 92 & 500 West

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	923	182	223	161
Future Volume (veh/h)	166	0	923	182	223	161
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1003	198	242	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	386	0	2153	960	278	247
Arrive On Green	0.06	0.00	0.61	0.61	0.16	0.16
Sat Flow, veh/h	1781	180	3647	1585	1781	1585
Grp Volume(v), veh/h	180	8.6	1003	198	242	175
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	3.8		15.5	5.6	13.3	10.5
Cycle Q Clear(g_c), s	3.8		15.5	5.6	13.3	10.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	386		2153	960	278	247
V/C Ratio(X)	0.47		0.47	0.21	0.87	0.71
Avail Cap(c_a), veh/h	514		2153	960	445	396
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.2		10.8	8.9	41.2	40.0
Incr Delay (d2), s/veh	0.3		0.7	0.5	6.3	1.4
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1		5.2	1.7	6.2	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.6		11.6	9.4	47.5	41.4
LnGrp LOS	A		B	A	D	D
Approach Vol, veh/h			1201		417	
Approach Delay, s/veh			11.2		45.0	
Approach LOS			B		D	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	11.8	66.6				21.6
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	13.0	44.0				25.0
Max Q Clear Time (g_c+I1), s	5.8	17.5				15.3
Green Ext Time (p_c), s	0.1	3.3				0.3

Intersection Summary	
HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	923	182	223	161
Future Volume (veh/h)	166	0	923	182	223	161
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1003	198	242	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	386	0	2153	960	278	247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.00	0.61	0.61	0.16	0.16
Unsig. Movement Delay						
Ln Grp Delay, s/veh	8.6	0.0	11.6	9.4	47.5	41.4
Ln Grp LOS	A	A	B	A	D	D
Approach Vol, veh/h		180	1201		417	
Approach Delay, s/veh		8.6	11.2		45.0	
Approach LOS		A	B		D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	11.8	66.6	21.6					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	44.0	25.0					
Max Allow Headway (MAH), s	2.2	3.2	2.4					
Max Q Clear (g_c+I1), s	5.8	17.5	15.3					
Green Ext Time (g_e), s	0.1	3.3	0.3					
Prob of Phs Call (p_c)	0.99	1.00	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	180	0	242	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	3.8	0.0	13.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.8	0.0	13.3	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	466	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	60.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	45.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	60.6	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	386	0	278	0	0	0	0	0
V/C Ratio (X)	0.47	0.00	0.87	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	514	0	445	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.2	0.0	41.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	6.3	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.6	0.0	47.5	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.1	0.0	5.8	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.1	0.0	6.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.11	0.00	0.36	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1003	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	15.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	15.5	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2153	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2153	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.6	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	198	175	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	5.6	10.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.6	10.5	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	960	247	0	0	0	0	0
V/C Ratio (X)	0.00	0.21	0.71	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	960	396	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.9	40.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	1.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.4	41.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.6	4.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.7	4.1	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.40	0.24	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		18.8						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	3	35	58	0	0	4	267	66	0	268	39
Future Vol, veh/h	59	3	35	58	0	0	4	267	66	0	268	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	3	38	63	0	0	4	290	72	0	291	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	465	682	167	481	667	181	333	0	0	362	0	0
Stage 1	312	312	-	334	334	-	-	-	-	-	-	-
Stage 2	153	370	-	147	333	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	481	371	848	468	378	831	1223	-	-	1193	-	-
Stage 1	673	656	-	653	642	-	-	-	-	-	-	-
Stage 2	834	619	-	841	642	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	480	370	848	443	377	831	1223	-	-	1193	-	-
Mov Cap-2 Maneuver	480	370	-	443	377	-	-	-	-	-	-	-
Stage 1	671	656	-	651	640	-	-	-	-	-	-	-
Stage 2	831	617	-	799	642	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	14.5	0.1	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1223	-	-	480	770	443	-	1193	-	-
HCM Lane V/C Ratio	0.004	-	-	0.134	0.054	0.142	-	-	-	-
HCM Control Delay (s)	8	-	-	13.7	9.9	14.5	0	0	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0.5	-	0	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	211	113	97	0	0	211
Future Vol, veh/h	211	113	97	0	0	211
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	229	123	105	0	0	229

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	105	0	-	0	625	53
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	520	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1484	-	-	-	417	1003
Stage 1	-	-	-	-	908	-
Stage 2	-	-	-	-	561	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1484	-	-	-	353	1003
Mov Cap-2 Maneuver	-	-	-	-	353	-
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	561	-

Approach	EB	WB	SB
HCM Control Delay, s	5.1	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1484	-	-	-	1003
HCM Lane V/C Ratio	0.155	-	-	-	0.229
HCM Control Delay (s)	7.9	-	-	-	9.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.9

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	56	1	0	22	95	95	0	46	2
Future Vol, veh/h	0	0	11	56	1	0	22	95	95	0	46	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	12	61	1	0	24	103	103	0	50	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	254	305	51	260	255	155	52	0	0	206	0	0
Stage 1	51	51	-	203	203	-	-	-	-	-	-	-
Stage 2	203	254	-	57	52	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	699	608	1017	693	649	891	1554	-	-	1365	-	-
Stage 1	962	852	-	799	733	-	-	-	-	-	-	-
Stage 2	799	697	-	955	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	689	597	1017	676	637	891	1554	-	-	1365	-	-
Mov Cap-2 Maneuver	689	597	-	676	637	-	-	-	-	-	-	-
Stage 1	945	852	-	785	720	-	-	-	-	-	-	-
Stage 2	783	684	-	944	852	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.6	10.9	0.8	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1554	-	-	1017	675	1365	-	-
HCM Lane V/C Ratio	0.015	-	-	0.012	0.092	-	-	-
HCM Control Delay (s)	7.4	0	-	8.6	10.9	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0	-	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	11	5	9	15	166	9	0	16	136	0	31
Future Vol, veh/h	38	11	5	9	15	166	9	0	16	136	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	12	5	10	16	180	10	0	17	148	0	34

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	196	0	0	17	0	0	237	310	12	141	135	16
Stage 1	-	-	-	-	-	-	94	94	-	36	36	-
Stage 2	-	-	-	-	-	-	143	216	-	105	99	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1377	-	-	1600	-	-	717	605	1069	829	756	1063
Stage 1	-	-	-	-	-	-	913	817	-	980	865	-
Stage 2	-	-	-	-	-	-	860	724	-	901	813	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1377	-	-	1600	-	-	675	583	1069	793	729	1063
Mov Cap-2 Maneuver	-	-	-	-	-	-	675	583	-	793	729	-
Stage 1	-	-	-	-	-	-	886	792	-	951	860	-
Stage 2	-	-	-	-	-	-	828	720	-	860	789	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.4	0.3	9.1	10.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	675	-	1069	1377	-	-	1600	-	-	793	-	1063
HCM Lane V/C Ratio	0.014	-	0.016	0.03	-	-	0.006	-	-	0.186	-	0.032
HCM Control Delay (s)	10.4	0	8.4	7.7	-	-	7.3	-	-	10.6	0	8.5
HCM Lane LOS	B	A	A	A	-	-	A	-	-	B	A	A
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-	-	0	-	-	0.7	-	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	24	0	3	0	333	15	2	359	0
Future Vol, veh/h	0	0	0	24	0	3	0	333	15	2	359	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	70	-	0	160	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	26	0	3	0	362	16	2	390	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	758	756	195	561	756	362	390	0	0	362	0	0
Stage 1	394	394	-	362	362	-	-	-	-	-	-	-
Stage 2	364	362	-	199	394	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	309	337	814	424	337	682	1167	-	-	1195	-	-
Stage 1	603	604	-	656	624	-	-	-	-	-	-	-
Stage 2	654	624	-	785	604	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	307	336	814	424	336	682	1167	-	-	1195	-	-
Mov Cap-2 Maneuver	307	336	-	424	336	-	-	-	-	-	-	-
Stage 1	603	603	-	656	624	-	-	-	-	-	-	-
Stage 2	651	624	-	784	603	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	13.7	0	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1167	-	-	-	443	1195	-	-
HCM Lane V/C Ratio	-	-	-	-	0.066	0.002	-	-
HCM Control Delay (s)	0	-	-	0	13.7	8	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	48	0	34	0	34	59	33	33	0
Future Vol, veh/h	0	0	0	48	0	34	0	34	59	33	33	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	52	0	37	0	37	64	36	36	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	196	209	36	145	145	37	36	0	0	101	0	0
Stage 1	108	108	-	37	37	-	-	-	-	-	-	-
Stage 2	88	101	-	108	108	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	763	688	1037	824	746	1035	1575	-	-	1491	-	-
Stage 1	897	806	-	978	864	-	-	-	-	-	-	-
Stage 2	920	811	-	897	806	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	723	671	1037	809	728	1035	1575	-	-	1491	-	-
Mov Cap-2 Maneuver	723	671	-	809	728	-	-	-	-	-	-	-
Stage 1	897	787	-	978	864	-	-	-	-	-	-	-
Stage 2	887	811	-	875	787	-	-	-	-	-	-	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	0	9.3	0	3.7
HCM LOS	A	A		

Minor Lane/Major Mvmt	NEL	NET	NER	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SWL	SWT	SWR
Capacity (veh/h)	1575	-	-	-	-	-	809	-	1035	1491	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	0.064	-	0.036	0.024	-	-
HCM Control Delay (s)	0	-	-	0	0	0	9.8	0	8.6	7.5	-	-
HCM Lane LOS	A	-	-	A	A	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	0.2	-	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	59	166	34	48	136
Future Vol, veh/h	33	59	166	34	48	136
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	64	180	37	52	148

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	100	0	465	68
Stage 1	-	-	-	-	68	-
Stage 2	-	-	-	-	397	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1493	-	556	995
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	679	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1493	-	488	995
Mov Cap-2 Maneuver	-	-	-	-	488	-
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	595	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.4	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	783	-	-	1493	-
HCM Lane V/C Ratio	0.255	-	-	0.121	-
HCM Control Delay (s)	11.2	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0.4	-

Intersection	
Int Delay, s/veh	8.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	170	78	0	0	200	61	27	0	111	0
Future Vol, veh/h	0	0	170	78	0	0	200	61	27	0	111	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	185	85	0	0	217	66	29	0	121	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	636	650	121	714	621	66	121	0	0	95	0	0
Stage 1	121	121	-	500	500	-	-	-	-	-	-	-
Stage 2	515	529	-	214	121	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	391	388	930	346	403	998	1467	-	-	1499	-	-
Stage 1	883	796	-	553	543	-	-	-	-	-	-	-
Stage 2	543	527	-	788	796	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	347	331	930	246	343	998	1467	-	-	1499	-	-
Mov Cap-2 Maneuver	347	331	-	246	343	-	-	-	-	-	-	-
Stage 1	752	796	-	471	463	-	-	-	-	-	-	-
Stage 2	463	449	-	631	796	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	27.1	5.5	0
HCM LOS	A	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1467	-	-	-	-	930	246	-	-	1499	-	-
HCM Lane V/C Ratio	0.148	-	-	-	-	0.199	0.345	-	-	-	-	-
HCM Control Delay (s)	7.9	-	-	0	0	9.8	27.1	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	D	A	A	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-	-	0.7	1.5	-	-	0	-	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	4	159	32	7	0	183	287	17	0	358	0
Future Vol, veh/h	0	4	159	32	7	0	183	287	17	0	358	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	100	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	173	35	8	0	199	312	18	0	389	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1112	1117	389	1188	1099	312	389	0	0	330	0	0
Stage 1	389	389	-	710	710	-	-	-	-	-	-	-
Stage 2	723	728	-	478	389	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	186	207	659	165	212	728	1170	-	-	1229	-	-
Stage 1	635	608	-	424	437	-	-	-	-	-	-	-
Stage 2	417	429	-	568	608	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	156	172	659	104	176	728	1170	-	-	1229	-	-
Mov Cap-2 Maneuver	156	172	-	104	176	-	-	-	-	-	-	-
Stage 1	527	608	-	352	363	-	-	-	-	-	-	-
Stage 2	339	356	-	416	608	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	50.8	3.3	0
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1170	-	-	-	172	659	104	176	-	1229	-	-
HCM Lane V/C Ratio	0.17	-	-	-	0.025	0.262	0.334	0.043	-	-	-	-
HCM Control Delay (s)	8.7	-	-	0	26.5	12.4	56.1	26.4	0	0	-	-
HCM Lane LOS	A	-	-	A	D	B	F	D	A	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-	0.1	1	1.3	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	25	32	0	7	15	480	17	4	545	0
Future Vol, veh/h	0	0	25	32	0	7	15	480	17	4	545	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	27	35	0	8	16	522	18	4	592	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1167	1172	592	1168	1154	522	592	0	0	540	0	0
Stage 1	600	600	-	554	554	-	-	-	-	-	-	-
Stage 2	567	572	-	614	600	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	171	192	506	170	197	555	984	-	-	1028	-	-
Stage 1	488	490	-	517	514	-	-	-	-	-	-	-
Stage 2	508	504	-	479	490	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	166	188	506	158	193	555	984	-	-	1028	-	-
Mov Cap-2 Maneuver	166	188	-	158	193	-	-	-	-	-	-	-
Stage 1	480	488	-	509	506	-	-	-	-	-	-	-
Stage 2	493	496	-	452	488	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	30.1	0.3	0.1
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	984	-	-	-	-	506	158	-	555	1028	-	-
HCM Lane V/C Ratio	0.017	-	-	-	-	0.054	0.22	-	0.014	0.004	-	-
HCM Control Delay (s)	8.7	-	-	0	0	12.5	34.1	0	11.6	8.5	-	-
HCM Lane LOS	A	-	-	A	A	B	D	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.2	0.8	-	0	0	-	-

1: Highland Blvd & Grant Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	48	30	0	10	52	517	79	16	839	4
Future Volume (veh/h)	3	0	48	30	0	10	52	517	79	16	839	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	0	52	33	0	11	57	562	86	17	912	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	2	109	200	6	29	126	978	143	604	1303	6
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	55	32	1496	1112	77	396	75	1396	204	783	1861	8
Grp Volume(v), veh/h	55	0	0	44	0	0	705	0	0	17	0	916
Grp Sat Flow(s),veh/h/ln	1583	0	0	1586	0	0	1676	0	0	783	0	1869
Q Serve(g_s), s	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	15.2
Cycle Q Clear(g_c), s	1.8	0.0	0.0	1.2	0.0	0.0	15.3	0.0	0.0	0.6	0.0	15.2
Prop In Lane	0.05		0.95	0.75		0.25	0.08		0.12	1.00		0.00
Lane Grp Cap(c), veh/h	187	0	0	234	0	0	1247	0	0	604	0	1309
V/C Ratio(X)	0.29	0.00	0.00	0.19	0.00	0.00	0.57	0.00	0.00	0.03	0.00	0.70
Avail Cap(c_a), veh/h	698	0	0	690	0	0	1247	0	0	604	0	1309
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	0.0	23.3	0.0	0.0	3.9	0.0	0.0	2.5	0.0	4.7
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.1	0.0	0.0	1.9	0.0	0.0	0.1	0.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.5	0.0	0.0	2.4	0.0	0.0	0.0	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	0.0	0.0	23.4	0.0	0.0	5.7	0.0	0.0	2.5	0.0	7.8
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		55			44			705			933	
Approach Delay, s/veh		23.9			23.4			5.7			7.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	43.0	9.8	43.0	9.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	37.0	21.0	37.0	21.0
Max Q Clear Time (g_c+I1), s	17.3	3.8	17.2	3.2
Green Ext Time (p_c), s	2.9	0.1	3.7	0.1

Intersection Summary	
HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	48	30	0	10	52	517	79	16	839	4
Future Volume (veh/h)	3	0	48	30	0	10	52	517	79	16	839	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	0	52	33	0	11	57	562	86	17	912	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	76	2	109	200	6	29	126	978	143	604	1303	6
HCM 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
Prop Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.70	0.70	0.70	0.70	0.70	0.70
Unsig. Movement Delay												
Ln Grp Delay, s/veh	23.9	0.0	0.0	23.4	0.0	0.0	5.7	0.0	0.0	2.5	0.0	7.8
Ln Grp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		55			44			705			933	
Approach Delay, s/veh		23.9			23.4			5.7			7.7	
Approach LOS		C			C			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		8.0		6.0		8.0
Phs Duration (G+Y+Rc), s		43.0		9.8		43.0		9.8
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		37.0		21.0		37.0		21.0
Max Allow Headway (MAH), s		4.0		4.1		3.7		3.9
Max Q Clear (g_c+I1), s		17.3		3.8		17.2		3.2
Green Ext Time (g_e), s		2.9		0.1		3.7		0.1
Prob of Phs Call (p_c)		1.00		0.77		1.00		0.77
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		75		55		783		1112
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1396		32		1861		77
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		204		1496		8		396
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R		L+T+R		L		L+T+R

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	705	0	55	0	17	0	44
Grp Sat Flow (s), veh/h/ln	0	1676	0	1583	0	783	0	1586
Q Serve Time (g_s), s	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	15.3	0.0	1.8	0.0	0.6	0.0	1.2
Perm LT Sat Flow (s_l), veh/h/ln	0	619	0	1426	0	783	0	1374
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1865	0	503	0	1803
Perm LT Eff Green (g_p), s	0.0	37.0	0.0	3.8	0.0	37.0	0.0	3.8
Perm LT Serve Time (g_u), s	0.0	21.8	0.0	2.6	0.0	21.7	0.0	2.1
Perm LT Q Serve Time (g_ps), s	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	15.2	0.0	1.4	0.0	0.0	0.0	0.2
Serve Time pre Blk (g_fs), s	0.0	9.9	0.0	1.4	0.0	0.0	0.0	0.2
Prop LT Inside Lane (P_L)	0.00	0.08	0.00	0.05	0.00	1.00	0.00	0.75
Lane Grp Cap (c), veh/h	0	1247	0	187	0	604	0	234
V/C Ratio (X)	0.00	0.57	0.00	0.29	0.00	0.03	0.00	0.19
Avail Cap (c_a), veh/h	0	1247	0	698	0	604	0	690
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	3.9	0.0	23.5	0.0	2.5	0.0	23.3
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.3	0.0	0.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.7	0.0	23.9	0.0	2.5	0.0	23.4
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	0.6	0.0	0.0	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.4	0.0	0.6	0.0	0.0	0.0	0.5
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.06	0.00	0.01	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment						T+R		
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	916	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1869	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	15.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	15.2	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.12	0.00	0.95	0.00	0.00	0.00	0.25
Lane Grp Cap (c), veh/h	0	0	0	0	0	1309	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1309	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

2: Highland Blvd & 11800 North

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	100	207	0	131	99	512	258	276	633	8
Future Volume (veh/h)	5	0	100	207	0	131	99	512	258	276	633	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	109	225	0	142	108	557	280	300	688	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	0	410	371	0	410	331	1047	887	354	1031	13
Arrive On Green	0.26	0.00	0.26	0.26	0.00	0.26	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1246	0	1585	1284	0	1585	748	1870	1585	657	1842	24
Grp Volume(v), veh/h	5	0	109	225	0	142	108	557	280	300	0	697
Grp Sat Flow(s),veh/h/ln	1246	0	1585	1284	0	1585	748	1870	1585	657	0	1866
Q Serve(g_s), s	0.2	0.0	3.6	11.2	0.0	4.8	7.8	12.3	6.2	24.7	0.0	17.4
Cycle Q Clear(g_c), s	5.0	0.0	3.6	14.8	0.0	4.8	25.2	12.3	6.2	37.0	0.0	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	341	0	410	371	0	410	331	1047	887	354	0	1044
V/C Ratio(X)	0.01	0.00	0.27	0.61	0.00	0.35	0.33	0.53	0.32	0.85	0.00	0.67
Avail Cap(c_a), veh/h	414	0	504	447	0	504	331	1047	887	354	0	1044
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	19.5	25.4	0.0	19.9	19.1	9.1	7.8	23.0	0.0	10.2
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.6	0.0	0.2	0.2	0.3	0.1	16.5	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.3	3.3	0.0	1.7	1.3	4.2	1.8	6.3	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	0.0	19.6	26.0	0.0	20.1	19.3	9.4	7.9	39.5	0.0	11.6
LnGrp LOS	C	A	B	C	A	C	B	A	A	D	A	B
Approach Vol, veh/h		114			367			945			997	
Approach Delay, s/veh		19.7			23.8			10.1			20.0	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	43.0	23.1	43.0	23.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	37.0	21.0	37.0	21.0
Max Q Clear Time (g_c+I1), s	27.2	7.0	39.0	16.8
Green Ext Time (p_c), s	2.1	0.2	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

2: Highland Blvd & 11800 North

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	100	207	0	131	99	512	258	276	633	8
Future Volume (veh/h)	5	0	100	207	0	131	99	512	258	276	633	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	109	225	0	142	108	557	280	300	688	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	341	0	410	371	0	410	331	1047	887	354	1031	13
HCM 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
Prop Arrive On Green	0.26	0.00	0.26	0.26	0.00	0.26	0.56	0.56	0.56	0.56	0.56	0.56
Unsig. Movement Delay												
Ln Grp Delay, s/veh	22.0	0.0	19.6	26.0	0.0	20.1	19.3	9.4	7.9	39.5	0.0	11.6
Ln Grp LOS	C	A	B	C	A	C	B	A	A	D	A	B
Approach Vol, veh/h		114			367			945			997	
Approach Delay, s/veh		19.7			23.8			10.1			20.0	
Approach LOS		B			C			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		43.0		23.1		43.0		23.1
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		37.0		21.0		37.0		21.0
Max Allow Headway (MAH), s		3.5		4.0		4.1		3.1
Max Q Clear (g_c+I1), s		27.2		7.0		39.0		16.8
Green Ext Time (g_e), s		2.1		0.2		0.0		0.3
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.16		0.00		1.00		0.45
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		748		1246		657		1284
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		0		1842		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		24		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	108	0	5	0	300	0	225
Grp Sat Flow (s), veh/h/ln	0	748	0	1246	0	657	0	1284
Q Serve Time (g_s), s	0.0	7.8	0.0	0.2	0.0	24.7	0.0	11.2
Cycle Q Clear Time (g_c), s	0.0	25.2	0.0	5.0	0.0	37.0	0.0	14.8
Perm LT Sat Flow (s_l), veh/h/ln	0	748	0	1246	0	657	0	1284
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	37.0	0.0	17.1	0.0	37.0	0.0	17.1
Perm LT Serve Time (g_u), s	0.0	19.6	0.0	12.3	0.0	24.7	0.0	13.5
Perm LT Q Serve Time (g_ps), s	0.0	7.8	0.0	0.2	0.0	24.7	0.0	11.2
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	331	0	341	0	354	0	371
V/C Ratio (X)	0.00	0.33	0.00	0.01	0.00	0.85	0.00	0.61
Avail Cap (c_a), veh/h	0	331	0	414	0	354	0	447
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.1	0.0	22.0	0.0	23.0	0.0	25.4
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	16.5	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.3	0.0	22.0	0.0	39.5	0.0	26.0
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	0.1	0.0	4.6	0.0	3.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.3	0.0	0.1	0.0	6.3	0.0	3.3
%ile Storage Ratio (RQ%)	0.00	0.33	0.00	0.02	0.00	1.59	0.00	0.83
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T						
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	557	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1047	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1047	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	280	0	109	0	697	0	142
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1866	0	1585
Q Serve Time (g_s), s	0.0	6.2	0.0	3.6	0.0	17.4	0.0	4.8
Cycle Q Clear Time (g_c), s	0.0	6.2	0.0	3.6	0.0	17.4	0.0	4.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.01	0.00	1.00
Lane Grp Cap (c), veh/h	0	887	0	410	0	1044	0	410
V/C Ratio (X)	0.00	0.32	0.00	0.27	0.00	0.67	0.00	0.35
Avail Cap (c_a), veh/h	0	887	0	504	0	1044	0	504
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.8	0.0	19.5	0.0	10.2	0.0	19.9
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.1	0.0	1.3	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.9	0.0	19.6	0.0	11.6	0.0	20.1
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	1.3	0.0	5.8	0.0	1.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	1.3	0.0	6.2	0.0	1.7
%ile Storage Ratio (RQ%)	0.00	0.23	0.00	0.06	0.00	0.08	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		16.7						
HCM 6th LOS		B						

3: Highland Blvd & SR - 92

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	449	2110	54	237	842	160	130	254	258	277	219	342
Future Volume (veh/h)	449	2110	54	237	842	160	130	254	258	277	219	342
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	488	2293	59	258	915	174	141	276	0	301	238	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	545	2466	765	308	1461	652	191	421		352	498	
Arrive On Green	0.16	0.48	0.48	0.09	0.41	0.41	0.12	0.12	0.00	0.10	0.27	0.00
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	1142	3554	1585	3456	1870	1585
Grp Volume(v), veh/h	488	2293	59	258	915	174	141	276	0	301	238	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1142	1777	1585	1728	1870	1585
Q Serve(g_s), s	18.0	54.8	2.6	9.6	26.5	9.4	15.4	9.6	0.0	11.1	13.9	0.0
Cycle Q Clear(g_c), s	18.0	54.8	2.6	9.6	26.5	9.4	15.4	9.6	0.0	11.1	13.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	545	2466	765	308	1461	652	191	421		352	498	
V/C Ratio(X)	0.90	0.93	0.08	0.84	0.63	0.27	0.74	0.66		0.86	0.48	
Avail Cap(c_a), veh/h	704	2466	765	369	1461	652	191	421		372	509	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.7	31.5	18.1	58.3	30.3	25.3	57.6	54.8	0.0	57.4	40.1	0.0
Incr Delay (d2), s/veh	10.1	7.8	0.2	11.6	2.0	1.0	12.6	2.9	0.0	16.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	22.4	1.0	4.6	11.2	3.8	5.3	4.5	0.0	5.7	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.8	39.3	18.2	69.9	32.4	26.3	70.2	57.7	0.0	74.2	40.3	0.0
LnGrp LOS	E	D	B	E	C	C	E	E		E	D	
Approach Vol, veh/h		2840			1347			417	A		539	A
Approach Delay, s/veh		43.1			38.8			61.9			59.3	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	27.0	60.8	19.2	23.0	17.7	70.1		42.2
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	6.1	* 7.3		7.6
Max Green Setting (Gmax), s	* 23	* 47	14.0	15.4	13.9	* 60		35.4
Max Q Clear Time (g_c+I1), s	20.6	28.5	13.1	17.4	11.6	56.8		15.9
Green Ext Time (p_c), s	0.5	3.4	0.1	0.0	0.0	2.4		0.5

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	449	2110	54	237	842	160	130	254	258	277	219	342
Future Volume (veh/h)	449	2110	54	237	842	160	130	254	258	277	219	342
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	488	2293	59	258	915	174	141	276	0	301	238	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	545	2466	765	308	1461	652	191	421		352	498	
HCM 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
Prop Arrive On Green	0.16	0.48	0.48	0.09	0.41	0.41	0.12	0.12	0.00	0.10	0.27	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	63.8	39.3	18.2	69.9	32.4	26.3	70.2	57.7	0.0	74.2	40.3	0.0
Ln Grp LOS	E	D	B	E	C	C	E	E		E	D	
Approach Vol, veh/h		2840			1347			417			539	
Approach Delay, s/veh		43.1			38.8			61.9			59.3	
Approach LOS		D			D			E			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Case No	2.0	3.0	2.0	5.3	2.0	3.0		3.0
Phs Duration (G+Y+Rc), s	27.0	60.8	19.2	23.0	17.7	70.1		42.2
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	6.1	* 7.3		7.6
Max Green (Gmax), s	* 27	* 47	14.0	15.4	13.9	* 60		35.4
Max Allow Headway (MAH), s	2.5	3.5	3.8	3.1	1.3	3.6		3.4
Max Q Clear (g_c+I1), s	20.0	28.5	13.1	17.4	11.6	56.8		15.9
Green Ext Time (g_e), s	0.5	3.4	0.1	0.0	0.0	2.4		0.5
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.02	0.00	1.00	1.00	0.03	0.00		0.00

Left-Turn Movement Data					
Assigned Mvmt	1		3	7	5
Mvmt Sat Flow, veh/h	3456		3456	1142	3456

Through Movement Data								
Assigned Mvmt			2		4		6		8
Mvmt Sat Flow, veh/h			3554		3554		5106		1870

Right-Turn Movement Data								
Assigned Mvmt			12		14		16		18
Mvmt Sat Flow, veh/h			1585		1585		1585		1585

Left Lane Group Data									
Assigned Mvmt		1	0	3	7	5	0	0	0
Lane Assignment		L (Prot)		L (Prot)	L	L (Prot)			

Lanes in Grp	2	0	2	1	2	0	0	0
Grp Vol (v), veh/h	488	0	301	141	258	0	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1728	1142	1728	0	0	0
Q Serve Time (g_s), s	18.0	0.0	11.1	15.4	9.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	18.0	0.0	11.1	15.4	9.6	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1142	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	15.4	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	15.4	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	15.4	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	545	0	352	191	308	0	0	0
V/C Ratio (X)	0.90	0.00	0.86	0.74	0.84	0.00	0.00	0.00
Avail Cap (c_a), veh/h	704	0	372	191	369	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	53.7	0.0	57.4	57.6	58.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	10.1	0.0	16.8	12.6	11.6	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	63.8	0.0	74.2	70.2	69.9	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	7.6	0.0	4.9	4.7	4.1	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.8	0.0	0.8	0.7	0.5	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	8.3	0.0	5.7	5.3	4.6	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.49	0.00	0.66	0.84	0.43	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	3	0	1
Grp Vol (v), veh/h	0	915	0	276	0	2293	0	238
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1702	0	1870
Q Serve Time (g_s), s	0.0	26.5	0.0	9.6	0.0	54.8	0.0	13.9
Cycle Q Clear Time (g_c), s	0.0	26.5	0.0	9.6	0.0	54.8	0.0	13.9
Lane Grp Cap (c), veh/h	0	1461	0	421	0	2466	0	498
V/C Ratio (X)	0.00	0.63	0.00	0.66	0.00	0.93	0.00	0.48
Avail Cap (c_a), veh/h	0	1461	0	421	0	2466	0	509
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	30.3	0.0	54.8	0.0	31.5	0.0	40.1
Incr Delay (d2), s/veh	0.0	2.0	0.0	2.9	0.0	7.8	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	32.4	0.0	57.7	0.0	39.3	0.0	40.3
1st-Term Q (Q1), veh/ln	0.0	10.8	0.0	4.3	0.0	20.7	0.0	6.4
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.2	0.0	1.8	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	11.2	0.0	4.5	0.0	22.4	0.0	6.5
%ile Storage Ratio (RQ%)	0.00	0.23	0.00	0.18	0.00	0.46	0.00	0.75
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	174	0	0	0	59	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	9.4	0.0	0.0	0.0	2.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.4	0.0	0.0	0.0	2.6	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	652	0	188	0	765	0	422
V/C Ratio (X)	0.00	0.27	0.00	0.00	0.00	0.08	0.00	0.00
Avail Cap (c_a), veh/h	0	652	0	188	0	765	0	432
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	25.3	0.0	0.0	0.0	18.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	26.3	0.0	0.0	0.0	18.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.6	0.0	0.0	0.0	0.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.8	0.0	0.0	0.0	1.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.35	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	2216	435	289	1020	2	368	15	217	175	255	682
Future Volume (veh/h)	22	2216	435	289	1020	2	368	15	217	175	255	682
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	2409	473	314	1109	2	400	16	236	190	277	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	992	3448	1070	363	1733	773	420	380	169	343	298	
Arrive On Green	0.29	0.68	0.68	0.10	0.49	0.49	0.12	0.11	0.11	0.10	0.08	0.00
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	24	2409	473	314	1109	2	400	16	236	190	277	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.6	37.7	18.0	11.6	30.2	0.1	14.9	0.5	13.8	6.8	10.1	0.0
Cycle Q Clear(g_c), s	0.6	37.7	18.0	11.6	30.2	0.1	14.9	0.5	13.8	6.8	10.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	992	3448	1070	363	1733	773	420	380	169	343	298	
V/C Ratio(X)	0.02	0.70	0.44	0.87	0.64	0.00	0.95	0.04	1.39	0.55	0.93	
Avail Cap(c_a), veh/h	992	3448	1070	375	1733	773	420	380	169	362	298	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.3	13.0	9.8	57.3	24.8	17.1	56.7	52.1	57.4	55.8	59.2	0.0
Incr Delay (d2), s/veh	0.0	1.2	1.3	17.5	1.8	0.0	31.6	0.0	208.5	0.8	33.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	12.5	6.3	5.8	12.3	0.0	8.4	0.2	15.4	3.0	5.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	14.2	11.1	74.7	26.6	17.1	88.3	52.1	266.0	56.6	92.8	0.0
LnGrp LOS	C	B	B	E	C	B	F	D	F	E	F	
Approach Vol, veh/h		2906			1425			652			467	A
Approach Delay, s/veh		13.8			37.2			151.7			78.1	
Approach LOS		B			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	45.8	70.0	20.0	20.0	19.5	96.2	22.0	18.0
Change Period (Y+Rc), s	7.7	* 6.6	7.1	* 6.1	5.9	* 7.7	* 6.2	7.1
Max Green Setting (Gmax), s	12.3	* 63	13.6	* 14	14.1	* 64	* 16	10.9
Max Q Clear Time (g_c+I1), s	12.6	32.2	8.8	15.8	13.6	39.7	16.9	12.1
Green Ext Time (p_c), s	0.0	4.5	0.0	0.0	0.0	13.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	2216	435	289	1020	2	368	15	217	175	255	682
Future Volume (veh/h)	22	2216	435	289	1020	2	368	15	217	175	255	682
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	2409	473	314	1109	2	400	16	236	190	277	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	992	3448	1070	363	1733	773	420	380	169	343	298	
HCM 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
Prop Arrive On Green	0.29	0.68	0.68	0.10	0.49	0.49	0.12	0.11	0.11	0.10	0.08	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	33.3	14.2	11.1	74.7	26.6	17.1	88.3	52.1	266.0	56.6	92.8	0.0
Ln Grp LOS	C	B	B	E	C	B	F	D	F	E	F	
Approach Vol, veh/h		2906			1425			652			467	
Approach Delay, s/veh		13.8			37.2			151.7			78.1	
Approach LOS		B			D			F			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	2	1	4	3	5	6	7	8
Case No	3.0	2.0	3.0	2.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	70.0	45.8	20.0	20.0	19.5	96.2	22.0	18.0
Change Period (Y+Rc), s	* 6.6	7.7	* 6.1	7.1	5.9	* 7.7	* 6.2	7.1
Max Green (Gmax), s	* 63	12.3	* 14	13.6	14.1	* 64	* 16	10.9
Max Allow Headway (MAH), s	3.6	1.3	2.3	1.6	1.3	3.5	1.4	3.1
Max Q Clear (g_c+I1), s	32.2	2.6	15.8	8.8	13.6	39.7	16.9	12.1
Green Ext Time (g_e), s	4.5	0.0	0.0	0.0	0.0	13.8	0.0	0.0
Prob of Phs Call (p_c)	1.00	0.58	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt		1		3	5		7	
Mvmt Sat Flow, veh/h		3456		3456	3456		3456	

Through Movement Data								
Assigned Mvmt	2		4			6		8
Mvmt Sat Flow, veh/h	3554		3554			5106		3554

Right-Turn Movement Data								
Assigned Mvmt	12		14			16		18
Mvmt Sat Flow, veh/h	1585		1585			1585		1585

Left Lane Group Data								
Assigned Mvmt	0	1	0	3	5	0	7	0
Lane Assignment		L (Prot)		L (Prot)	L (Prot)		L (Prot)	

Lanes in Grp	0	2	0	2	2	0	2	0
Grp Vol (v), veh/h	0	24	0	190	314	0	400	0
Grp Sat Flow (s), veh/h/ln	0	1728	0	1728	1728	0	1728	0
Q Serve Time (g_s), s	0.0	0.6	0.0	6.8	11.6	0.0	14.9	0.0
Cycle Q Clear Time (g_c), s	0.0	0.6	0.0	6.8	11.6	0.0	14.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	992	0	343	363	0	420	0
V/C Ratio (X)	0.00	0.02	0.00	0.55	0.87	0.00	0.95	0.00
Avail Cap (c_a), veh/h	0	992	0	362	375	0	420	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	33.3	0.0	55.8	57.3	0.0	56.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.8	17.5	0.0	31.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	33.3	0.0	56.6	74.7	0.0	88.3	0.0
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	3.0	4.9	0.0	6.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.9	0.0	1.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	3.0	5.8	0.0	8.4	0.0
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.33	0.66	0.00	0.82	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	4	0	0	6	0	8
Lane Assignment	T		T			T		T
Lanes in Grp	2	0	2	0	0	3	0	2
Grp Vol (v), veh/h	1109	0	16	0	0	2409	0	277
Grp Sat Flow (s), veh/h/ln	1777	0	1777	0	0	1702	0	1777
Q Serve Time (g_s), s	30.2	0.0	0.5	0.0	0.0	37.7	0.0	10.1
Cycle Q Clear Time (g_c), s	30.2	0.0	0.5	0.0	0.0	37.7	0.0	10.1
Lane Grp Cap (c), veh/h	1733	0	380	0	0	3448	0	298
V/C Ratio (X)	0.64	0.00	0.04	0.00	0.00	0.70	0.00	0.93
Avail Cap (c_a), veh/h	1733	0	380	0	0	3448	0	298
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	24.8	0.0	52.1	0.0	0.0	13.0	0.0	59.2
Incr Delay (d2), s/veh	1.8	0.0	0.0	0.0	0.0	1.2	0.0	33.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.6	0.0	52.1	0.0	0.0	14.2	0.0	92.8
1st-Term Q (Q1), veh/ln	11.8	0.0	0.2	0.0	0.0	12.1	0.0	4.5
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.0	0.0	0.4	0.0	1.4

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	12.3	0.0	0.2	0.0	0.0	12.5	0.0	5.9
%ile Storage Ratio (RQ%)	0.30	0.00	0.01	0.00	0.00	0.64	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	14	0	0	16	0	18
Lane Assignment	R		R			R		R
Lanes in Grp	1	0	1	0	0	1	0	1
Grp Vol (v), veh/h	2	0	236	0	0	473	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	1585	0	0	1585	0	1585
Q Serve Time (g_s), s	0.1	0.0	13.8	0.0	0.0	18.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.1	0.0	13.8	0.0	0.0	18.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	773	0	169	0	0	1070	0	133
V/C Ratio (X)	0.00	0.00	1.39	0.00	0.00	0.44	0.00	0.00
Avail Cap (c_a), veh/h	773	0	169	0	0	1070	0	133
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	17.1	0.0	57.4	0.0	0.0	9.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	208.5	0.0	0.0	1.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	17.1	0.0	266.0	0.0	0.0	11.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	5.5	0.0	0.0	6.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	9.8	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	15.4	0.0	0.0	6.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	1.50	0.00	0.00	0.72	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	16.6	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

5: Center Street/8000 West & SR - 92

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	1197	192	185	759	333	490	111	319	310	99	121
Future Volume (veh/h)	142	1197	192	185	759	333	490	111	319	310	99	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	154	1301	209	201	825	362	533	121	0	337	108	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	1589	709	253	1637	730	582	288		386	183	155
Arrive On Green	0.06	0.45	0.45	0.07	0.46	0.46	0.17	0.15	0.00	0.11	0.10	0.10
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	154	1301	209	201	825	362	533	121	0	337	108	132
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	5.7	41.5	10.9	7.4	21.2	20.8	19.7	7.6	0.0	12.5	7.2	10.7
Cycle Q Clear(g_c), s	5.7	41.5	10.9	7.4	21.2	20.8	19.7	7.6	0.0	12.5	7.2	10.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	206	1589	709	253	1637	730	582	288		386	183	155
V/C Ratio(X)	0.75	0.82	0.29	0.80	0.50	0.50	0.92	0.42		0.87	0.59	0.85
Avail Cap(c_a), veh/h	335	1589	709	335	1637	730	619	306		407	191	162
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.2	31.3	22.9	59.3	24.6	24.5	53.2	49.7	0.0	56.8	56.2	57.7
Incr Delay (d2), s/veh	2.0	4.8	1.1	6.8	1.1	2.4	17.3	0.4	0.0	16.9	2.8	30.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	17.7	4.3	3.4	8.7	8.3	10.0	3.6	0.0	6.4	3.5	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.2	36.2	23.9	66.1	25.7	26.9	70.5	50.1	0.0	73.7	59.0	88.1
LnGrp LOS	E	D	C	E	C	C	E	D		E	E	F
Approach Vol, veh/h		1664			1388			654	A		577	
Approach Delay, s/veh		37.1			31.9			66.7			74.2	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	66.9	21.2	26.7	16.9	65.1	28.6	19.4
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 13	53.0	* 15	* 21	* 13	53.0	* 23	* 13
Max Q Clear Time (g_c+I1), s	17.3	23.2	14.5	9.6	9.4	43.5	21.7	12.7
Green Ext Time (p_c), s	0.1	3.8	0.1	0.3	0.1	4.1	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	44.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	1197	192	185	759	333	490	111	319	310	99	121
Future Volume (veh/h)	142	1197	192	185	759	333	490	111	319	310	99	121
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	154	1301	209	201	825	362	533	121	0	337	108	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	206	1589	709	253	1637	730	582	288		386	183	155
HCM 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
Prop Arrive On Green	0.06	0.45	0.45	0.07	0.46	0.46	0.17	0.15	0.00	0.11	0.10	0.10
Unsig. Movement Delay												
Ln Grp Delay, s/veh	62.2	36.2	23.9	66.1	25.7	26.9	70.5	50.1	0.0	73.7	59.0	88.1
Ln Grp LOS	E	D	C	E	C	C	E	D		E	E	F
Approach Vol, veh/h		1664			1388			654			577	
Approach Delay, s/veh		37.1			31.9			66.7			74.2	
Approach LOS		D			C			E			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	15.1	66.9	21.2	26.7	16.9	65.1	28.6	19.4
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green (Gmax), s	* 13	53.0	* 15	* 21	* 13	53.0	* 23	* 13
Max Allow Headway (MAH), s	2.2	3.4	2.3	4.3	2.2	3.6	2.2	3.5
Max Q Clear (g_c+I1), s	7.7	23.2	14.5	9.6	9.4	43.5	21.7	12.7
Green Ext Time (g_e), s	0.1	3.8	0.1	0.3	0.1	4.1	0.2	0.0
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	1.00	0.00	0.16	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	3456		3456		3456		3456	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3554		1870		3554		1870

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	2	0	2	0	2	0	2	0
Grp Vol (v), veh/h	154	0	337	0	201	0	533	0
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	5.7	0.0	12.5	0.0	7.4	0.0	19.7	0.0
Cycle Q Clear Time (g_c), s	5.7	0.0	12.5	0.0	7.4	0.0	19.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	206	0	386	0	253	0	582	0
V/C Ratio (X)	0.75	0.00	0.87	0.00	0.80	0.00	0.92	0.00
Avail Cap (c_a), veh/h	335	0	407	0	335	0	619	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	60.2	0.0	56.8	0.0	59.3	0.0	53.2	0.0
Incr Delay (d2), s/veh	2.0	0.0	16.9	0.0	6.8	0.0	17.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	62.2	0.0	73.7	0.0	66.1	0.0	70.5	0.0
1st-Term Q (Q1), veh/ln	2.4	0.0	5.4	0.0	3.2	0.0	8.6	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.9	0.0	0.2	0.0	1.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.5	0.0	6.4	0.0	3.4	0.0	10.0	0.0
%ile Storage Ratio (RQ%)	0.13	0.00	0.81	0.00	0.35	0.00	0.98	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	825	0	121	0	1301	0	108
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	21.2	0.0	7.6	0.0	41.5	0.0	7.2
Cycle Q Clear Time (g_c), s	0.0	21.2	0.0	7.6	0.0	41.5	0.0	7.2
Lane Grp Cap (c), veh/h	0	1637	0	288	0	1589	0	183
V/C Ratio (X)	0.00	0.50	0.00	0.42	0.00	0.82	0.00	0.59
Avail Cap (c_a), veh/h	0	1637	0	306	0	1589	0	191
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.6	0.0	49.7	0.0	31.3	0.0	56.2
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.4	0.0	4.8	0.0	2.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.7	0.0	50.1	0.0	36.2	0.0	59.0
1st-Term Q (Q1), veh/ln	0.0	8.4	0.0	3.6	0.0	16.6	0.0	3.4
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	1.1	0.0	0.1

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	8.7	0.0	3.6	0.0	17.7	0.0	3.5
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.20	0.00	0.42	0.00	0.26
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	362	0	0	0	209	0	132
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	20.8	0.0	0.0	0.0	10.9	0.0	10.7
Cycle Q Clear Time (g_c), s	0.0	20.8	0.0	0.0	0.0	10.9	0.0	10.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	730	0	244	0	709	0	155
V/C Ratio (X)	0.00	0.50	0.00	0.00	0.00	0.29	0.00	0.85
Avail Cap (c_a), veh/h	0	730	0	260	0	709	0	162
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.5	0.0	0.0	0.0	22.9	0.0	57.7
Incr Delay (d2), s/veh	0.0	2.4	0.0	0.0	0.0	1.1	0.0	30.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	26.9	0.0	0.0	0.0	23.9	0.0	88.1
1st-Term Q (Q1), veh/ln	0.0	7.8	0.0	0.0	0.0	4.1	0.0	4.3
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.2	0.0	1.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	8.3	0.0	0.0	0.0	4.3	0.0	5.6
%ile Storage Ratio (RQ%)	0.00	0.86	0.00	0.00	0.00	0.21	0.00	1.42
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	44.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

6: SR - 92 & 500 West

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	132	0	1205	164	219	235
Future Volume (veh/h)	132	0	1205	164	219	235
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	0	1310	178	238	255
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	285	0	2282	1018	314	279
Arrive On Green	0.04	0.00	0.64	0.64	0.18	0.18
Sat Flow, veh/h	1781	143	3647	1585	1781	1585
Grp Volume(v), veh/h	143	12.3	1310	178	238	255
Grp Sat Flow(s),veh/h/ln	1781	B	1777	1585	1781	1585
Q Serve(g_s), s	3.6		27.2	5.9	16.5	20.5
Cycle Q Clear(g_c), s	3.6		27.2	5.9	16.5	20.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	285		2282	1018	314	279
V/C Ratio(X)	0.50		0.57	0.17	0.76	0.91
Avail Cap(c_a), veh/h	387		2282	1018	411	366
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8		13.2	9.4	50.9	52.6
Incr Delay (d2), s/veh	0.5		1.1	0.4	3.9	19.8
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2		9.8	1.9	7.7	9.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.3		14.2	9.7	54.8	72.4
LnGrp LOS	B		B	A	D	E
Approach Vol, veh/h			1488		493	
Approach Delay, s/veh			13.7		63.9	
Approach LOS			B		E	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	11.6	89.5				28.9
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	13.6	69.0				30.0
Max Q Clear Time (g_c+I1), s	5.6	29.2				22.5
Green Ext Time (p_c), s	0.1	4.9				0.4

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	132	0	1205	164	219	235
Future Volume (veh/h)	132	0	1205	164	219	235
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	0	1310	178	238	255
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	285	0	2282	1018	314	279
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.00	0.64	0.64	0.18	0.18
Unsig. Movement Delay						
Ln Grp Delay, s/veh	12.3	0.0	14.2	9.7	54.8	72.4
Ln Grp LOS	B	A	B	A	D	E
Approach Vol, veh/h		143	1488		493	
Approach Delay, s/veh		12.3	13.7		63.9	
Approach LOS		B	B		E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	11.6	89.5	28.9					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	69.0	30.0					
Max Allow Headway (MAH), s	2.2	3.2	2.4					
Max Q Clear (g_c+I1), s	5.6	29.2	22.5					
Green Ext Time (g_e), s	0.1	4.9	0.4					
Prob of Phs Call (p_c)	0.99	1.00	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.01					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	143	0	238	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	3.6	0.0	16.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.6	0.0	16.5	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	354	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	83.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	56.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	18.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	83.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	285	0	314	0	0	0	0	0
V/C Ratio (X)	0.50	0.00	0.76	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	387	0	411	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	11.8	0.0	50.9	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	3.9	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	12.3	0.0	54.8	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.2	0.0	7.4	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.2	0.0	7.7	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.11	0.00	0.45	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1310	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	27.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	27.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2282	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2282	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	178	255	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	5.9	20.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.9	20.5	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1018	279	0	0	0	0	0
V/C Ratio (X)	0.00	0.17	0.91	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1018	366	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.4	52.6	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	19.8	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.7	72.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.8	8.2	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	1.5	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.9	9.7	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.45	0.57	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		25.3						
HCM 6th LOS		C						

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	10	148	123	1	1	26	186	83	0	342	27
Future Vol, veh/h	25	10	148	123	1	1	26	186	83	0	342	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	11	161	134	1	1	28	202	90	0	372	29

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	545	735	201	495	704	146	401	0	0	292	0	0
Stage 1	387	387	-	303	303	-	-	-	-	-	-	-
Stage 2	158	348	-	192	401	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	421	345	806	457	360	875	1154	-	-	1267	-	-
Stage 1	608	608	-	681	662	-	-	-	-	-	-	-
Stage 2	828	633	-	791	599	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	412	337	806	350	351	875	1154	-	-	1267	-	-
Mov Cap-2 Maneuver	412	337	-	350	351	-	-	-	-	-	-	-
Stage 1	593	608	-	665	646	-	-	-	-	-	-	-
Stage 2	806	618	-	622	599	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	21.4	0.7	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1154	-	-	412	741	350	501	1267	-	-
HCM Lane V/C Ratio	0.024	-	-	0.066	0.232	0.382	0.004	-	-	-
HCM Control Delay (s)	8.2	-	-	14.4	11.3	21.5	12.2	0	-	-
HCM Lane LOS	A	-	-	B	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.9	1.7	0	0	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	151	60	119	0	1	251
Future Vol, veh/h	151	60	119	0	1	251
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	164	65	129	0	1	273

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	129	0	-	0	490	65
Stage 1	-	-	-	-	129	-
Stage 2	-	-	-	-	361	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1454	-	-	-	507	986
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	676	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1454	-	-	-	450	986
Mov Cap-2 Maneuver	-	-	-	-	450	-
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	676	-

Approach	EB	WB	SB
HCM Control Delay, s	5.6	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1454	-	-	-	981
HCM Lane V/C Ratio	0.113	-	-	-	0.279
HCM Control Delay (s)	7.8	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1.1

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	1	30	145	2	1	11	68	73	0	77	1
Future Vol, veh/h	7	1	30	145	2	1	11	68	73	0	77	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	1	33	158	2	1	12	74	79	0	84	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	224	262	85	240	223	114	85	0	0	153	0	0
Stage 1	85	85	-	138	138	-	-	-	-	-	-	-
Stage 2	139	177	-	102	85	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	732	643	974	714	676	939	1512	-	-	1428	-	-
Stage 1	923	824	-	865	782	-	-	-	-	-	-	-
Stage 2	864	753	-	904	824	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	725	637	974	685	670	939	1512	-	-	1428	-	-
Mov Cap-2 Maneuver	725	637	-	685	670	-	-	-	-	-	-	-
Stage 1	915	824	-	857	775	-	-	-	-	-	-	-
Stage 2	853	746	-	873	824	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	11.8	0.5	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1512	-	-	904	686	1428	-	-
HCM Lane V/C Ratio	0.008	-	-	0.046	0.235	-	-	-
HCM Control Delay (s)	7.4	0	-	9.2	11.8	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.9	0	-	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	41	23	41	37	64	19	0	33	80	0	19
Future Vol, veh/h	15	41	23	41	37	64	19	0	33	80	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	45	25	45	40	70	21	0	36	87	0	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	110	0	0	70	0	0	253	277	45	238	232	40
Stage 1	-	-	-	-	-	-	77	77	-	130	130	-
Stage 2	-	-	-	-	-	-	176	200	-	108	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1480	-	-	1531	-	-	700	631	1025	716	668	1031
Stage 1	-	-	-	-	-	-	932	831	-	874	789	-
Stage 2	-	-	-	-	-	-	826	736	-	897	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1480	-	-	1531	-	-	665	606	1025	670	641	1031
Mov Cap-2 Maneuver	-	-	-	-	-	-	665	606	-	670	641	-
Stage 1	-	-	-	-	-	-	922	822	-	864	766	-
Stage 2	-	-	-	-	-	-	786	715	-	856	802	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	2.1	9.3	10.7
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	665	-	1025	1480	-	-	1531	-	-	670	-	1031
HCM Lane V/C Ratio	0.031	-	0.035	0.011	-	-	0.029	-	-	0.13	-	0.02
HCM Control Delay (s)	10.6	0	8.6	7.5	-	-	7.4	-	-	11.2	0	8.6
HCM Lane LOS	B	A	A	A	-	-	A	-	-	B	A	A
HCM 95th %tile Q(veh)	0.1	-	0.1	0	-	-	0.1	-	-	0.4	-	0.1

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	52	0	6	0	224	64	8	402	0
Future Vol, veh/h	0	0	0	52	0	6	0	224	64	8	402	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	70	-	0	160	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	57	0	7	0	243	70	9	437	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	702	698	219	480	698	243	437	0	0	243	0	0
Stage 1	455	455	-	243	243	-	-	-	-	-	-	-
Stage 2	247	243	-	237	455	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	339	364	786	482	364	795	1121	-	-	1322	-	-
Stage 1	555	568	-	760	704	-	-	-	-	-	-	-
Stage 2	756	704	-	746	568	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	335	361	786	480	361	795	1121	-	-	1322	-	-
Mov Cap-2 Maneuver	335	361	-	480	361	-	-	-	-	-	-	-
Stage 1	555	564	-	760	704	-	-	-	-	-	-	-
Stage 2	750	704	-	741	564	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	13.2	0	0.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1121	-	-	-	501	1322	-	-
HCM Lane V/C Ratio	-	-	-	-	0.126	0.007	-	-
HCM Control Delay (s)	0	-	-	0	13.2	7.7	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	29	0	22	0	22	23	21	21	0
Future Vol, veh/h	0	0	0	29	0	22	0	22	23	21	21	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	32	0	24	0	24	25	23	23	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	118	118	23	93	93	24	23	0	0	49	0	0
Stage 1	69	69	-	24	24	-	-	-	-	-	-	-
Stage 2	49	49	-	69	69	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	858	772	1054	891	797	1052	1592	-	-	1558	-	-
Stage 1	941	837	-	994	875	-	-	-	-	-	-	-
Stage 2	964	854	-	941	837	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	829	760	1054	881	785	1052	1592	-	-	1558	-	-
Mov Cap-2 Maneuver	829	760	-	881	785	-	-	-	-	-	-	-
Stage 1	941	824	-	994	875	-	-	-	-	-	-	-
Stage 2	942	854	-	927	824	-	-	-	-	-	-	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	0	8.9	0	3.7
HCM LOS	A	A		

Minor Lane/Major Mvmt	NEL	NET	NER	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SWL	SWT	SWR
Capacity (veh/h)	1592	-	-	-	-	-	881	-	1052	1558	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	0.036	-	0.023	0.015	-	-
HCM Control Delay (s)	0	-	-	0	0	0	9.2	0	8.5	7.3	-	-
HCM Lane LOS	A	-	-	A	A	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	0.1	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	101	50	0	0	86	100	78	0	70	0
Future Vol, veh/h	0	0	101	50	0	0	86	100	78	0	70	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	110	54	0	0	93	109	85	0	76	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	414	456	76	426	371	109	76	0	0	194	0	0
Stage 1	76	76	-	295	295	-	-	-	-	-	-	-
Stage 2	338	380	-	131	76	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	549	501	985	539	559	945	1523	-	-	1379	-	-
Stage 1	933	832	-	713	669	-	-	-	-	-	-	-
Stage 2	676	614	-	873	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	523	470	985	457	525	945	1523	-	-	1379	-	-
Mov Cap-2 Maneuver	523	470	-	457	525	-	-	-	-	-	-	-
Stage 1	876	832	-	670	628	-	-	-	-	-	-	-
Stage 2	635	577	-	776	832	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	13.9	2.4	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1523	-	-	-	-	985	457	-	-	1379	-	-
HCM Lane V/C Ratio	0.061	-	-	-	-	0.111	0.119	-	-	-	-	-
HCM Control Delay (s)	7.5	-	-	0	0	9.1	13.9	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	B	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.4	0.4	-	-	0	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	54	68	0	15	65	448	73	18	408	0
Future Vol, veh/h	0	0	54	68	0	15	65	448	73	18	408	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	0	0	-	0	100	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	59	74	0	16	71	487	79	20	443	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1160	1191	443	1142	1112	487	443	0	0	566	0	0
Stage 1	483	483	-	629	629	-	-	-	-	-	-	-
Stage 2	677	708	-	513	483	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	172	187	615	177	209	581	1117	-	-	1006	-	-
Stage 1	565	553	-	470	475	-	-	-	-	-	-	-
Stage 2	443	438	-	544	553	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	157	171	615	150	192	581	1117	-	-	1006	-	-
Mov Cap-2 Maneuver	157	171	-	150	192	-	-	-	-	-	-	-
Stage 1	529	542	-	440	445	-	-	-	-	-	-	-
Stage 2	403	410	-	482	542	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	43.3	0.9	0.4
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1117	-	-	-	-	615	150	-	581	1006	-	-
HCM Lane V/C Ratio	0.063	-	-	-	-	0.095	0.493	-	0.028	0.019	-	-
HCM Control Delay (s)	8.4	-	-	0	0	11.5	50.3	0	11.4	8.6	-	-
HCM Lane LOS	A	-	-	A	A	B	F	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.3	2.3	-	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	18	137	68	15	0	127	264	73	0	221	0
Future Vol, veh/h	0	18	137	68	15	0	127	264	73	0	221	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	100	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	20	149	74	16	0	138	287	79	0	240	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	851	882	240	888	803	287	240	0	0	366	0	0
Stage 1	240	240	-	563	563	-	-	-	-	-	-	-
Stage 2	611	642	-	325	240	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	280	285	799	264	317	752	1327	-	-	1193	-	-
Stage 1	763	707	-	511	509	-	-	-	-	-	-	-
Stage 2	481	469	-	687	707	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	247	255	799	186	284	752	1327	-	-	1193	-	-
Mov Cap-2 Maneuver	247	255	-	186	284	-	-	-	-	-	-	-
Stage 1	684	707	-	458	456	-	-	-	-	-	-	-
Stage 2	416	420	-	543	707	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	33.3	2.2	0
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1327	-	-	-	255	799	186	284	-	1193	-	-
HCM Lane V/C Ratio	0.104	-	-	-	0.077	0.186	0.397	0.057	-	-	-	-
HCM Control Delay (s)	8	-	-	0	20.3	10.5	36.6	18.4	0	0	-	-
HCM Lane LOS	A	-	-	A	C	B	E	C	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	0.2	0.7	1.8	0.2	-	0	-	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	23	64	22	29	80
Future Vol, veh/h	21	23	64	22	29	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	25	70	24	32	87

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	48	0	200	36
Stage 1	-	-	-	-	36	-
Stage 2	-	-	-	-	164	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1559	-	789	1037
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	865	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1559	-	753	1037
Mov Cap-2 Maneuver	-	-	-	-	753	-
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	825	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.5	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	942	-	-	1559	-
HCM Lane V/C Ratio	0.126	-	-	0.045	-
HCM Control Delay (s)	9.4	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	78	32	0	6	21	391	49	2	339	1
Future Volume (veh/h)	4	0	78	32	0	6	21	391	49	2	339	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	0	85	35	0	7	23	425	53	2	368	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	2	183	425	4	31	170	603	73	717	712	2
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	54	17	1510	1250	36	257	37	1578	191	916	1864	5
Grp Volume(v), veh/h	89	0	0	42	0	0	501	0	0	2	0	369
Grp Sat Flow(s),veh/h/ln	1581	0	0	1543	0	0	1805	0	0	916	0	1869
Q Serve(g_s), s	0.6	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	3.7
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.5	0.0	0.0	5.6	0.0	0.0	0.0	0.0	3.7
Prop In Lane	0.04		0.96	0.83		0.17	0.05		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	347	0	0	460	0	0	846	0	0	717	0	714
V/C Ratio(X)	0.26	0.00	0.00	0.09	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.52
Avail Cap(c_a), veh/h	2179	0	0	2031	0	0	2147	0	0	1392	0	2090
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.9	0.0	0.0	9.6	0.0	0.0	6.3	0.0	0.0	4.6	0.0	5.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.1	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.0	0.0	0.0	9.6	0.0	0.0	6.6	0.0	0.0	4.6	0.0	6.0
LnGrp LOS	B	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		89			42			501			371	
Approach Delay, s/veh		10.0			9.6			6.6			6.0	
Approach LOS		B			A			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	15.2	8.9	15.2	8.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	27.0	31.0	27.0	31.0
Max Q Clear Time (g_c+I1), s	7.6	3.3	5.7	2.5
Green Ext Time (p_c), s	1.6	0.2	1.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	78	32	0	6	21	391	49	2	339	1
Future Volume (veh/h)	4	0	78	32	0	6	21	391	49	2	339	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	0	85	35	0	7	23	425	53	2	368	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	162	2	183	425	4	31	170	603	73	717	712	2
HCM 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
Prop Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.38	0.38	0.38	0.38	0.38	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	10.0	0.0	0.0	9.6	0.0	0.0	6.6	0.0	0.0	4.6	0.0	6.0
Ln Grp LOS	B	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		89			42			501			371	
Approach Delay, s/veh		10.0			9.6			6.6			6.0	
Approach LOS		B			A			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		8.0		6.0		8.0
Phs Duration (G+Y+Rc), s		15.2		8.9		15.2		8.9
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		27.0		31.0		27.0		31.0
Max Allow Headway (MAH), s		3.8		4.1		3.7		4.0
Max Q Clear (g_c+I1), s		7.6		3.3		5.7		2.5
Green Ext Time (g_e), s		1.6		0.2		1.1		0.1
Prob of Phs Call (p_c)		1.00		0.58		1.00		0.58
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		37		54		916		1250
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1578		17		1864		36
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		191		1510		5		257
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R		L+T+R		L		L+T+R

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	501	0	89	0	2	0	42
Grp Sat Flow (s), veh/h/ln	0	1805	0	1581	0	916	0	1543
Q Serve Time (g_s), s	0.0	0.6	0.0	0.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.6	0.0	1.3	0.0	0.0	0.0	0.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1029	0	1431	0	916	0	1333
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1866	0	1212	0	1796
Perm LT Eff Green (g_p), s	0.0	9.2	0.0	2.9	0.0	9.2	0.0	2.9
Perm LT Serve Time (g_u), s	0.0	5.6	0.0	2.4	0.0	3.6	0.0	1.7
Perm LT Q Serve Time (g_ps), s	0.0	0.6	0.0	0.6	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	5.1	0.0	0.7	0.0	0.0	0.0	0.1
Serve Time pre Blk (g_fs), s	0.0	5.1	0.0	0.7	0.0	0.0	0.0	0.1
Prop LT Inside Lane (P_L)	0.00	0.05	0.00	0.04	0.00	1.00	0.00	0.83
Lane Grp Cap (c), veh/h	0	846	0	347	0	717	0	460
V/C Ratio (X)	0.00	0.59	0.00	0.26	0.00	0.00	0.00	0.09
Avail Cap (c_a), veh/h	0	2147	0	2179	0	1392	0	2031
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	6.3	0.0	9.9	0.0	4.6	0.0	9.6
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.6	0.0	10.0	0.0	4.6	0.0	9.6
1st-Term Q (Q1), veh/ln	0.0	0.9	0.0	0.3	0.0	0.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.0	0.3	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.03	0.00	0.00	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment						T+R		
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	369	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1869	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.11	0.00	0.96	0.00	0.00	0.00	0.17
Lane Grp Cap (c), veh/h	0	0	0	0	0	714	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	2090	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	128	260	0	150	39	259	22	141	347	6
Future Volume (veh/h)	7	0	128	260	0	150	39	259	22	141	347	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	139	283	0	163	42	282	24	153	377	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	523	0	549	545	0	549	354	628	532	425	615	11
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.35	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1223	0	1585	1250	0	1585	999	1870	1585	1073	1830	34
Grp Volume(v), veh/h	8	0	139	283	0	163	42	282	24	153	0	384
Grp Sat Flow(s),veh/h/ln	1223	0	1585	1250	0	1585	999	1870	1585	1073	0	1864
Q Serve(g_s), s	0.2	0.0	2.4	7.9	0.0	2.8	1.4	4.5	0.4	4.9	0.0	6.5
Cycle Q Clear(g_c), s	3.0	0.0	2.4	10.3	0.0	2.8	7.9	4.5	0.4	9.4	0.0	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	523	0	549	545	0	549	354	628	532	425	0	626
V/C Ratio(X)	0.02	0.00	0.25	0.52	0.00	0.30	0.12	0.45	0.05	0.36	0.00	0.61
Avail Cap(c_a), veh/h	1104	0	1302	1139	0	1302	734	1338	1134	832	0	1334
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.1	0.0	8.8	12.5	0.0	9.0	13.8	9.8	8.5	13.5	0.0	10.5
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.1	0.1	0.2	0.0	0.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	1.7	0.0	0.7	0.3	1.4	0.1	1.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	0.0	8.9	12.8	0.0	9.1	13.8	10.0	8.5	13.7	0.0	10.8
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		147			446			348			537	
Approach Delay, s/veh		9.0			11.5			10.3			11.6	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	18.7	19.1	18.7	19.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	27.0	31.0	27.0	31.0
Max Q Clear Time (g_c+I1), s	9.9	5.0	11.4	12.3
Green Ext Time (p_c), s	0.8	0.4	1.3	0.8

Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	128	260	0	150	39	259	22	141	347	6
Future Volume (veh/h)	7	0	128	260	0	150	39	259	22	141	347	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	139	283	0	163	42	282	24	153	377	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	523	0	549	545	0	549	354	628	532	425	615	11
HCM 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
Prop Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.35	0.34	0.34	0.34	0.34	0.34	0.34
Unsig. Movement Delay												
Ln Grp Delay, s/veh	10.1	0.0	8.9	12.8	0.0	9.1	13.8	10.0	8.5	13.7	0.0	10.8
Ln Grp LOS	B	A	A	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		147			446			348			537	
Approach Delay, s/veh		9.0			11.5			10.3			11.6	
Approach LOS		A			B			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		18.7		19.1		18.7		19.1
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		27.0		31.0		27.0		31.0
Max Allow Headway (MAH), s		3.6		4.0		3.6		3.1
Max Q Clear (g_c+I1), s		9.9		5.0		11.4		12.3
Green Ext Time (g_e), s		0.8		0.4		1.3		0.8
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		999		1223		1073		1250
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		0		1830		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		34		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	42	0	8	0	153	0	283
Grp Sat Flow (s), veh/h/ln	0	999	0	1223	0	1073	0	1250
Q Serve Time (g_s), s	0.0	1.4	0.0	0.2	0.0	4.9	0.0	7.9
Cycle Q Clear Time (g_c), s	0.0	7.9	0.0	3.0	0.0	9.4	0.0	10.3
Perm LT Sat Flow (s_l), veh/h/ln	0	999	0	1223	0	1073	0	1250
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	12.7	0.0	13.1	0.0	12.7	0.0	13.1
Perm LT Serve Time (g_u), s	0.0	6.2	0.0	10.2	0.0	8.2	0.0	10.7
Perm LT Q Serve Time (g_ps), s	0.0	1.4	0.0	0.2	0.0	4.9	0.0	7.9
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	354	0	523	0	425	0	545
V/C Ratio (X)	0.00	0.12	0.00	0.02	0.00	0.36	0.00	0.52
Avail Cap (c_a), veh/h	0	734	0	1104	0	832	0	1139
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.8	0.0	10.1	0.0	13.5	0.0	12.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.8	0.0	10.1	0.0	13.7	0.0	12.8
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	0.0	0.0	0.9	0.0	1.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	0.0	0.0	1.0	0.0	1.7
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.01	0.00	0.25	0.00	0.44
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T						
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	282	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	628	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1338	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	24	0	139	0	384	0	163
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1864	0	1585
Q Serve Time (g_s), s	0.0	0.4	0.0	2.4	0.0	6.5	0.0	2.8
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	2.4	0.0	6.5	0.0	2.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	532	0	549	0	626	0	549
V/C Ratio (X)	0.00	0.05	0.00	0.25	0.00	0.61	0.00	0.30
Avail Cap (c_a), veh/h	0	1134	0	1302	0	1334	0	1302
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.5	0.0	8.8	0.0	10.5	0.0	9.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.5	0.0	8.9	0.0	10.8	0.0	9.1
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.6	0.0	2.0	0.0	0.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.6	0.0	2.0	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.04	0.00	0.03	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		11.0						
HCM 6th LOS		B						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	1132	51	192	842	87	73	93	102	151	103	254
Future Volume (veh/h)	246	1132	51	192	842	87	73	93	102	151	103	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	267	1230	55	209	915	95	79	101	0	164	112	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	336	1925	598	662	1703	760	176	288		237	392	
Arrive On Green	0.10	0.38	0.38	0.19	0.48	0.48	0.08	0.08	0.00	0.07	0.21	0.00
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	1281	3554	1585	3456	1870	1585
Grp Volume(v), veh/h	267	1230	55	209	915	95	79	101	0	164	112	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1281	1777	1585	1728	1870	1585
Q Serve(g_s), s	7.6	19.8	2.2	5.2	18.1	3.3	6.0	2.7	0.0	4.6	5.0	0.0
Cycle Q Clear(g_c), s	7.6	19.8	2.2	5.2	18.1	3.3	6.0	2.7	0.0	4.6	5.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	336	1925	598	662	1703	760	176	288		237	392	
V/C Ratio(X)	0.80	0.64	0.09	0.32	0.54	0.13	0.45	0.35		0.69	0.29	
Avail Cap(c_a), veh/h	467	1925	598	662	1703	760	205	370		484	569	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.2	25.6	20.1	34.8	18.3	14.4	45.0	43.5	0.0	45.6	33.2	0.0
Incr Delay (d2), s/veh	4.2	1.6	0.3	0.1	1.2	0.3	0.7	0.3	0.0	3.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	7.6	0.8	2.1	6.9	1.2	1.9	1.2	0.0	2.1	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	27.2	20.4	34.9	19.5	14.8	45.7	43.7	0.0	49.2	33.4	0.0
LnGrp LOS	D	C	C	C	B	B	D	D		D	C	
Approach Vol, veh/h		1552			1219			180	A		276	A
Approach Delay, s/veh		30.6			21.8			44.6			42.8	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	16.2	55.2	12.8	15.7	26.4	45.0		28.6
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 14	* 35	14.0	10.4	* 11	* 38		30.4
Max Q Clear Time (g_c+I1), s	9.6	20.1	6.6	8.0	7.2	21.8		7.0
Green Ext Time (p_c), s	0.2	3.1	0.3	0.1	0.0	4.5		0.2

Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	1132	51	192	842	87	73	93	102	151	103	254
Future Volume (veh/h)	246	1132	51	192	842	87	73	93	102	151	103	254
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	267	1230	55	209	915	95	79	101	0	164	112	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	336	1925	598	662	1703	760	176	288		237	392	
HCM 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
Prop Arrive On Green	0.10	0.38	0.38	0.19	0.48	0.48	0.08	0.08	0.00	0.07	0.21	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	48.4	27.2	20.4	34.9	19.5	14.8	45.7	43.7	0.0	49.2	33.4	0.0
Ln Grp LOS	D	C	C	C	B	B	D	D		D	C	
Approach Vol, veh/h		1552			1219			180			276	
Approach Delay, s/veh		30.6			21.8			44.6			42.8	
Approach LOS		C			C			D			D	

Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	6	5		8			
Case No		2.0	3.0	2.0	5.3	3.0	2.0		3.0			
Phs Duration (G+Y+Rc), s		16.2	55.2	12.8	15.7	45.0	26.4		28.6			
Change Period (Y+Rc), s		* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6			
Max Green (Gmax), s		* 14	* 35	14.0	10.4	* 38	* 11		30.4			
Max Allow Headway (MAH), s		2.5	3.5	3.8	2.9	3.6	1.3		3.4			
Max Q Clear (g_c+I1), s		9.6	20.1	6.6	8.0	21.8	7.2		7.0			
Green Ext Time (g_e), s		0.2	3.1	0.3	0.1	4.5	0.0		0.2			
Prob of Phs Call (p_c)		1.00	1.00	0.99	1.00	1.00	1.00		1.00			
Prob of Max Out (p_x)		0.13	0.00	0.03	1.00	0.00	0.00		0.00			

Left-Turn Movement Data												
Assigned Mvmt		1		3	7		5					
Mvmt Sat Flow, veh/h		3456		3456	1281		3456					

Through Movement Data												
Assigned Mvmt			2		4	6			8			
Mvmt Sat Flow, veh/h			3554		3554	5106			1870			

Right-Turn Movement Data												
Assigned Mvmt			12		14	16			18			
Mvmt Sat Flow, veh/h			1585		1585	1585			1585			

Left Lane Group Data												
Assigned Mvmt		1	0	3	7	0	5	0	0			
Lane Assignment		L (Prot)		L (Prot)	L		L (Prot)					

Lanes in Grp	2	0	2	1	0	2	0	0
Grp Vol (v), veh/h	267	0	164	79	0	209	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1728	1281	0	1728	0	0
Q Serve Time (g_s), s	7.6	0.0	4.6	6.0	0.0	5.2	0.0	0.0
Cycle Q Clear Time (g_c), s	7.6	0.0	4.6	6.0	0.0	5.2	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1281	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	8.1	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	8.1	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	336	0	237	176	0	662	0	0
V/C Ratio (X)	0.80	0.00	0.69	0.45	0.00	0.32	0.00	0.00
Avail Cap (c_a), veh/h	467	0	484	205	0	662	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	44.2	0.0	45.6	45.0	0.0	34.8	0.0	0.0
Incr Delay (d2), s/veh	4.2	0.0	3.6	0.7	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	48.4	0.0	49.2	45.7	0.0	34.9	0.0	0.0
1st-Term Q (Q1), veh/ln	3.1	0.0	2.0	1.9	0.0	2.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	3.3	0.0	2.1	1.9	0.0	2.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.19	0.00	0.24	0.31	0.00	0.20	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	2	3	0	0	1
Grp Vol (v), veh/h	0	915	0	101	1230	0	0	112
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	1702	0	0	1870
Q Serve Time (g_s), s	0.0	18.1	0.0	2.7	19.8	0.0	0.0	5.0
Cycle Q Clear Time (g_c), s	0.0	18.1	0.0	2.7	19.8	0.0	0.0	5.0
Lane Grp Cap (c), veh/h	0	1703	0	288	1925	0	0	392
V/C Ratio (X)	0.00	0.54	0.00	0.35	0.64	0.00	0.00	0.29
Avail Cap (c_a), veh/h	0	1703	0	370	1925	0	0	569
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.3	0.0	43.5	25.6	0.0	0.0	33.2
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.3	1.6	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.5	0.0	43.7	27.2	0.0	0.0	33.4
1st-Term Q (Q1), veh/ln	0.0	6.6	0.0	1.2	7.3	0.0	0.0	2.3
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.9	0.0	1.2	7.6	0.0	0.0	2.3
%ile Storage Ratio (RQ%)	0.00	0.14	0.00	0.05	0.16	0.00	0.00	0.27
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	95	0	0	55	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	3.3	0.0	0.0	2.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.3	0.0	0.0	2.2	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	760	0	129	598	0	0	332
V/C Ratio (X)	0.00	0.13	0.00	0.00	0.09	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	760	0	165	598	0	0	482
Upstream Filter (I)	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	14.4	0.0	0.0	20.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.8	0.0	0.0	20.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	0.0	0.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	0.0	0.8	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.00	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1109	316	395	664	10	430	57	159	28	135	108
Future Volume (veh/h)	63	1109	316	395	664	10	430	57	159	28	135	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1205	343	429	722	11	467	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	1968	611	492	1661	741	529	686	306	98	217	
Arrive On Green	0.04	0.39	0.39	0.14	0.47	0.47	0.15	0.19	0.19	0.03	0.06	0.00
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	68	1205	343	429	722	11	467	62	173	30	147	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	1.9	19.0	9.2	12.2	13.6	0.4	13.2	1.4	9.9	0.9	4.1	0.0
Cycle Q Clear(g_c), s	1.9	19.0	9.2	12.2	13.6	0.4	13.2	1.4	9.9	0.9	4.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	147	1968	611	492	1661	741	529	686	306	98	217	
V/C Ratio(X)	0.46	0.61	0.56	0.87	0.43	0.01	0.88	0.09	0.57	0.31	0.68	
Avail Cap(c_a), veh/h	425	1968	611	591	1661	741	615	686	306	470	281	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.8	24.7	7.1	42.0	17.8	14.3	41.5	33.1	36.6	47.6	46.0	0.0
Incr Delay (d2), s/veh	0.8	1.4	3.7	10.5	0.8	0.0	11.6	0.0	1.5	0.7	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	7.2	3.4	5.6	5.2	0.1	6.4	0.6	3.9	0.4	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	26.1	10.8	52.5	18.6	14.3	53.1	33.2	38.1	48.3	48.1	0.0
LnGrp LOS	D	C	B	D	B	B	D	C	D	D	D	
Approach Vol, veh/h		1616			1162			702			177	A
Approach Delay, s/veh		23.8			31.1			47.6			48.1	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	53.3	9.2	25.5	20.1	45.1	21.5	13.2
Change Period (Y+Rc), s	* 7.7	6.6	6.4	* 6.2	5.9	* 6.6	6.2	* 7.1
Max Green Setting (Gmax), s	* 12	34.4	13.6	* 13	17.1	* 32	17.8	* 7.9
Max Q Clear Time (g_c+I1), s	3.9	15.6	2.9	11.9	14.2	21.0	15.2	6.1
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.1	4.0	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1109	316	395	664	10	430	57	159	28	135	108
Future Volume (veh/h)	63	1109	316	395	664	10	430	57	159	28	135	108
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1205	343	429	722	11	467	62	173	30	147	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	147	1968	611	492	1661	741	529	686	306	98	217	
HCM 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
Prop Arrive On Green	0.04	0.39	0.39	0.14	0.47	0.47	0.15	0.19	0.19	0.03	0.06	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	47.6	26.1	10.8	52.5	18.6	14.3	53.1	33.2	38.1	48.3	48.1	0.0
Ln Grp LOS	D	C	B	D	B	B	D	C	D	D	D	
Approach Vol, veh/h		1616			1162			702			177	
Approach Delay, s/veh		23.8			31.1			47.6			48.1	
Approach LOS		C			C			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	8	7
Case No	2.0	3.0	2.0	3.0	2.0	3.0	3.0	2.0
Phs Duration (G+Y+Rc), s	11.9	53.3	9.2	25.5	20.1	45.1	13.2	21.5
Change Period (Y+Rc), s	* 7.7	6.6	6.4	* 6.2	5.9	* 6.6	* 7.1	6.2
Max Green (Gmax), s	* 12	34.4	13.6	* 13	17.1	* 32	* 7.9	17.8
Max Allow Headway (MAH), s	1.3	3.6	1.6	2.6	1.3	3.4	3.1	1.4
Max Q Clear (g_c+I1), s	3.9	15.6	2.9	11.9	14.2	21.0	6.1	15.2
Green Ext Time (g_e), s	0.0	2.4	0.0	0.0	0.1	4.0	0.1	0.1
Prob of Phs Call (p_c)	0.85	1.00	0.57	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	0.00	1.00	0.01	0.00	1.00	0.07

Left-Turn Movement Data								
Assigned Mvmt	1		3		5			7
Mvmt Sat Flow, veh/h	3456		3456		3456			3456

Through Movement Data								
Assigned Mvmt		2		4		6	8	
Mvmt Sat Flow, veh/h		3554		3554		5106	3554	

Right-Turn Movement Data								
Assigned Mvmt		12		14		16	18	
Mvmt Sat Flow, veh/h		1585		1585		1585	1585	

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	0	7
Lane Assignment	L (Prot)		L (Prot)		L (Prot)			L (Prot)

Lanes in Grp	2	0	2	0	2	0	0	2
Grp Vol (v), veh/h	68	0	30	0	429	0	0	467
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	0	1728
Q Serve Time (g_s), s	1.9	0.0	0.9	0.0	12.2	0.0	0.0	13.2
Cycle Q Clear Time (g_c), s	1.9	0.0	0.9	0.0	12.2	0.0	0.0	13.2
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	147	0	98	0	492	0	0	529
V/C Ratio (X)	0.46	0.00	0.31	0.00	0.87	0.00	0.00	0.88
Avail Cap (c_a), veh/h	425	0	470	0	591	0	0	615
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	46.8	0.0	47.6	0.0	42.0	0.0	0.0	41.5
Incr Delay (d2), s/veh	0.8	0.0	0.7	0.0	10.5	0.0	0.0	11.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	47.6	0.0	48.3	0.0	52.5	0.0	0.0	53.1
1st-Term Q (Q1), veh/ln	0.8	0.0	0.4	0.0	4.9	0.0	0.0	5.6
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.8	0.0	0.4	0.0	5.6	0.0	0.0	6.4
%ile Storage Ratio (RQ%)	0.09	0.00	0.04	0.00	0.64	0.00	0.00	0.63
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	8	0
Lane Assignment		T		T		T	T	
Lanes in Grp	0	2	0	2	0	3	2	0
Grp Vol (v), veh/h	0	722	0	62	0	1205	147	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	0.0	13.6	0.0	1.4	0.0	19.0	4.1	0.0
Cycle Q Clear Time (g_c), s	0.0	13.6	0.0	1.4	0.0	19.0	4.1	0.0
Lane Grp Cap (c), veh/h	0	1661	0	686	0	1968	217	0
V/C Ratio (X)	0.00	0.43	0.00	0.09	0.00	0.61	0.68	0.00
Avail Cap (c_a), veh/h	0	1661	0	686	0	1968	281	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	17.8	0.0	33.1	0.0	24.7	46.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	0.0	0.0	1.4	2.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.6	0.0	33.2	0.0	26.1	48.1	0.0
1st-Term Q (Q1), veh/ln	0.0	5.0	0.0	0.6	0.0	7.0	1.8	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.3	0.1	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.2	0.0	0.6	0.0	7.2	1.8	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.03	0.00	0.39	0.06	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	18	0
Lane Assignment		R		R		R	R	
Lanes in Grp	0	1	0	1	0	1	1	0
Grp Vol (v), veh/h	0	11	0	173	0	343	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	1585	0
Q Serve Time (g_s), s	0.0	0.4	0.0	9.9	0.0	9.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	9.9	0.0	9.2	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	741	0	306	0	611	97	0
V/C Ratio (X)	0.00	0.01	0.00	0.57	0.00	0.56	0.00	0.00
Avail Cap (c_a), veh/h	0	741	0	306	0	611	125	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	14.3	0.0	36.6	0.0	7.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.5	0.0	3.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.3	0.0	38.1	0.0	10.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	3.8	0.0	2.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.6	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	3.9	0.0	3.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.38	0.00	0.39	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	876	280	166	625	337	344	110	161	447	141	205
Future Volume (veh/h)	129	876	280	166	625	337	344	110	161	447	141	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	140	952	304	180	679	366	374	120	0	486	153	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	1299	580	247	1343	599	437	237		547	296	251
Arrive On Green	0.06	0.37	0.37	0.07	0.38	0.38	0.13	0.13	0.00	0.16	0.16	0.16
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	140	952	304	180	679	366	374	120	0	486	153	223
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	4.0	23.2	15.1	5.1	14.7	18.7	10.6	6.0	0.0	13.8	7.5	13.8
Cycle Q Clear(g_c), s	4.0	23.2	15.1	5.1	14.7	18.7	10.6	6.0	0.0	13.8	7.5	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	1299	580	247	1343	599	437	237		547	296	251
V/C Ratio(X)	0.68	0.73	0.52	0.73	0.51	0.61	0.86	0.51		0.89	0.52	0.89
Avail Cap(c_a), veh/h	435	1299	580	435	1343	599	460	249		563	305	258
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	27.5	24.9	45.5	23.9	25.2	42.8	40.8	0.0	41.2	38.6	41.2
Incr Delay (d2), s/veh	1.5	3.7	3.4	1.5	1.4	4.6	13.3	0.6	0.0	15.1	0.5	27.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	9.7	6.1	2.1	5.9	7.6	5.3	2.8	0.0	6.9	3.5	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	31.2	28.3	47.0	25.3	29.8	56.1	41.4	0.0	56.3	39.1	68.7
LnGrp LOS	D	C	C	D	C	C	E	D		E	D	E
Approach Vol, veh/h		1396			1225			494	A		862	
Approach Delay, s/veh		32.2			29.8			52.5			56.4	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	44.8	22.5	19.4	14.5	43.6	19.3	22.5
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 13	30.0	* 16	* 13	* 13	30.0	* 13	* 16
Max Q Clear Time (g_c+I1), s	6.0	20.7	15.8	8.0	7.1	25.2	12.6	15.8
Green Ext Time (p_c), s	0.1	2.3	0.1	0.1	0.1	2.0	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	39.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	876	280	166	625	337	344	110	161	447	141	205
Future Volume (veh/h)	129	876	280	166	625	337	344	110	161	447	141	205
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	140	952	304	180	679	366	374	120	0	486	153	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	205	1299	580	247	1343	599	437	237		547	296	251
HCM 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
Prop Arrive On Green	0.06	0.37	0.37	0.07	0.38	0.38	0.13	0.13	0.00	0.16	0.16	0.16
Unsig. Movement Delay												
Ln Grp Delay, s/veh	47.6	31.2	28.3	47.0	25.3	29.8	56.1	41.4	0.0	56.3	39.1	68.7
Ln Grp LOS	D	C	C	D	C	C	E	D		E	D	E
Approach Vol, veh/h		1396			1225			494			862	
Approach Delay, s/veh		32.2			29.8			52.5			56.4	
Approach LOS		C			C			D			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	13.3	44.8	22.5	19.4	14.5	43.6	19.3	22.5
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green (Gmax), s	* 13	30.0	* 16	* 13	* 13	30.0	* 13	* 16
Max Allow Headway (MAH), s	2.2	3.4	2.3	4.3	2.2	3.5	2.2	3.4
Max Q Clear (g_c+I1), s	6.0	20.7	15.8	8.0	7.1	25.2	12.6	15.8
Green Ext Time (g_e), s	0.1	2.3	0.1	0.1	0.1	2.0	0.0	0.1
Prob of Phs Call (p_c)	0.98	1.00	1.00	1.00	0.99	1.00	1.00	1.00
Prob of Max Out (p_x)	0.00	0.00	1.00	0.42	0.00	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	3456		3456		3456		3456	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3554		1870		3554		1870

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	2	0	2	0	2	0	2	0
Grp Vol (v), veh/h	140	0	486	0	180	0	374	0
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	4.0	0.0	13.8	0.0	5.1	0.0	10.6	0.0
Cycle Q Clear Time (g_c), s	4.0	0.0	13.8	0.0	5.1	0.0	10.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	205	0	547	0	247	0	437	0
V/C Ratio (X)	0.68	0.00	0.89	0.00	0.73	0.00	0.86	0.00
Avail Cap (c_a), veh/h	435	0	563	0	435	0	460	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	46.1	0.0	41.2	0.0	45.5	0.0	42.8	0.0
Incr Delay (d2), s/veh	1.5	0.0	15.1	0.0	1.5	0.0	13.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	47.6	0.0	56.3	0.0	47.0	0.0	56.1	0.0
1st-Term Q (Q1), veh/ln	1.6	0.0	5.8	0.0	2.1	0.0	4.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	1.1	0.0	0.1	0.0	0.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.7	0.0	6.9	0.0	2.1	0.0	5.3	0.0
%ile Storage Ratio (RQ%)	0.08	0.00	0.88	0.00	0.22	0.00	0.52	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	679	0	120	0	952	0	153
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	14.7	0.0	6.0	0.0	23.2	0.0	7.5
Cycle Q Clear Time (g_c), s	0.0	14.7	0.0	6.0	0.0	23.2	0.0	7.5
Lane Grp Cap (c), veh/h	0	1343	0	237	0	1299	0	296
V/C Ratio (X)	0.00	0.51	0.00	0.51	0.00	0.73	0.00	0.52
Avail Cap (c_a), veh/h	0	1343	0	249	0	1299	0	305
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	23.9	0.0	40.8	0.0	27.5	0.0	38.6
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.6	0.0	3.7	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.3	0.0	41.4	0.0	31.2	0.0	39.1
1st-Term Q (Q1), veh/ln	0.0	5.7	0.0	2.8	0.0	9.0	0.0	3.4
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.7	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.9	0.0	2.8	0.0	9.7	0.0	3.5
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.15	0.00	0.23	0.00	0.27
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	366	0	0	0	304	0	223
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	18.7	0.0	0.0	0.0	15.1	0.0	13.8
Cycle Q Clear Time (g_c), s	0.0	18.7	0.0	0.0	0.0	15.1	0.0	13.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	599	0	201	0	580	0	251
V/C Ratio (X)	0.00	0.61	0.00	0.00	0.00	0.52	0.00	0.89
Avail Cap (c_a), veh/h	0	599	0	211	0	580	0	258
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.2	0.0	0.0	0.0	24.9	0.0	41.2
Incr Delay (d2), s/veh	0.0	4.6	0.0	0.0	0.0	3.4	0.0	27.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.8	0.0	0.0	0.0	28.3	0.0	68.7
1st-Term Q (Q1), veh/ln	0.0	6.8	0.0	0.0	0.0	5.5	0.0	5.3
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.0	0.0	0.5	0.0	1.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.6	0.0	0.0	0.0	6.1	0.0	7.2
%ile Storage Ratio (RQ%)	0.00	0.79	0.00	0.00	0.00	0.30	0.00	1.84
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	39.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	992	182	223	161
Future Volume (veh/h)	166	0	992	182	223	161
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1078	198	242	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	364	0	2153	960	278	247
Arrive On Green	0.06	0.00	0.61	0.61	0.16	0.16
Sat Flow, veh/h	1781	180	3647	1585	1781	1585
Grp Volume(v), veh/h	180	9.2	1078	198	242	175
Grp Sat Flow(s),veh/h/ln	1781	A	1777	1585	1781	1585
Q Serve(g_s), s	3.8		17.2	5.6	13.3	10.5
Cycle Q Clear(g_c), s	3.8		17.2	5.6	13.3	10.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	364		2153	960	278	247
V/C Ratio(X)	0.49		0.50	0.21	0.87	0.71
Avail Cap(c_a), veh/h	492		2153	960	445	396
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8		11.2	8.9	41.2	40.0
Incr Delay (d2), s/veh	0.4		0.8	0.5	6.3	1.4
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1		5.8	1.7	6.2	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.2		12.0	9.4	47.5	41.4
LnGrp LOS	A		B	A	D	D
Approach Vol, veh/h			1276		417	
Approach Delay, s/veh			11.6		45.0	
Approach LOS			B		D	

Timer - Assigned Phs	1	2	8
Phs Duration (G+Y+Rc), s	11.8	66.6	21.6
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	13.0	44.0	25.0
Max Q Clear Time (g_c+I1), s	5.8	19.2	15.3
Green Ext Time (p_c), s	0.1	3.6	0.3

Intersection Summary	
HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	166	0	992	182	223	161
Future Volume (veh/h)	166	0	992	182	223	161
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	0	1078	198	242	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	364	0	2153	960	278	247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.00	0.61	0.61	0.16	0.16
Unsig. Movement Delay						
Ln Grp Delay, s/veh	9.2	0.0	12.0	9.4	47.5	41.4
Ln Grp LOS	A	A	B	A	D	D
Approach Vol, veh/h		180	1276		417	
Approach Delay, s/veh		9.2	11.6		45.0	
Approach LOS		A	B		D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	11.8	66.6	21.6					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	13.0	44.0	25.0					
Max Allow Headway (MAH), s	2.2	3.2	2.4					
Max Q Clear (g_c+I1), s	5.8	19.2	15.3					
Green Ext Time (g_e), s	0.1	3.6	0.3					
Prob of Phs Call (p_c)	0.99	1.00	1.00					
Prob of Max Out (p_x)	0.00	0.00	0.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	180	0	242	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	3.8	0.0	13.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.8	0.0	13.3	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	434	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	60.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	43.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	60.6	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	364	0	278	0	0	0	0	0
V/C Ratio (X)	0.49	0.00	0.87	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	492	0	445	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	8.8	0.0	41.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	6.3	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	9.2	0.0	47.5	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.1	0.0	5.8	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.1	0.0	6.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.11	0.00	0.36	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1078	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	17.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	17.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2153	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2153	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	11.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	198	175	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	5.6	10.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.6	10.5	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	960	247	0	0	0	0	0
V/C Ratio (X)	0.00	0.21	0.71	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	960	396	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.9	40.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	1.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.4	41.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.6	4.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.7	4.1	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.40	0.24	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		18.8						
HCM 6th LOS		B						

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	3	35	58	0	0	4	267	66	0	268	39
Future Vol, veh/h	59	3	35	58	0	0	4	267	66	0	268	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	64	3	38	63	0	0	4	290	72	0	291	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	465	682	167	481	667	181	333	0	0	362	0	0
Stage 1	312	312	-	334	334	-	-	-	-	-	-	-
Stage 2	153	370	-	147	333	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	481	371	848	468	378	831	1223	-	-	1193	-	-
Stage 1	673	656	-	653	642	-	-	-	-	-	-	-
Stage 2	834	619	-	841	642	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	480	370	848	443	377	831	1223	-	-	1193	-	-
Mov Cap-2 Maneuver	480	370	-	443	377	-	-	-	-	-	-	-
Stage 1	671	656	-	651	640	-	-	-	-	-	-	-
Stage 2	831	617	-	799	642	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	14.5	0.1	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1223	-	-	480	770	443	-	1193	-	-
HCM Lane V/C Ratio	0.004	-	-	0.134	0.054	0.142	-	-	-	-
HCM Control Delay (s)	8	-	-	13.7	9.9	14.5	0	0	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0.5	-	0	-	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	211	115	96	0	0	211
Future Vol, veh/h	211	115	96	0	0	211
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	229	125	104	0	0	229

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	104	0	-	0	625	52
Stage 1	-	-	-	-	104	-
Stage 2	-	-	-	-	521	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1485	-	-	-	417	1005
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	561	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1485	-	-	-	353	1005
Mov Cap-2 Maneuver	-	-	-	-	353	-
Stage 1	-	-	-	-	769	-
Stage 2	-	-	-	-	561	-

Approach	EB	WB	SB
HCM Control Delay, s	5.1	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1485	-	-	-	1005
HCM Lane V/C Ratio	0.154	-	-	-	0.228
HCM Control Delay (s)	7.9	-	-	-	9.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.9

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	30	65	1	0	22	94	95	0	116	2
Future Vol, veh/h	0	0	30	65	1	0	22	94	95	0	116	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	33	71	1	0	24	102	103	0	126	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	329	380	127	346	330	154	128	0	0	205	0	0
Stage 1	127	127	-	202	202	-	-	-	-	-	-	-
Stage 2	202	253	-	144	128	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	624	552	923	608	589	892	1458	-	-	1366	-	-
Stage 1	877	791	-	800	734	-	-	-	-	-	-	-
Stage 2	800	698	-	859	790	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	614	542	923	578	578	892	1458	-	-	1366	-	-
Mov Cap-2 Maneuver	614	542	-	578	578	-	-	-	-	-	-	-
Stage 1	860	791	-	785	720	-	-	-	-	-	-	-
Stage 2	784	685	-	829	790	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	12.1	0.8	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1458	-	-	923	578	1366	-	-
HCM Lane V/C Ratio	0.016	-	-	0.035	0.124	-	-	-
HCM Control Delay (s)	7.5	0	-	9	12.1	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.4	0	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	11	20	9	15	166	9	0	16	136	0	34
Future Vol, veh/h	38	11	20	9	15	166	9	0	16	136	0	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	12	22	10	16	180	10	0	17	148	0	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	196	0	0	34	0	0	239	310	12	150	152	16
Stage 1	-	-	-	-	-	-	94	94	-	36	36	-
Stage 2	-	-	-	-	-	-	145	216	-	114	116	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1377	-	-	1578	-	-	715	605	1069	818	740	1063
Stage 1	-	-	-	-	-	-	913	817	-	980	865	-
Stage 2	-	-	-	-	-	-	858	724	-	891	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1377	-	-	1578	-	-	671	583	1069	783	713	1063
Mov Cap-2 Maneuver	-	-	-	-	-	-	671	583	-	783	713	-
Stage 1	-	-	-	-	-	-	886	792	-	951	860	-
Stage 2	-	-	-	-	-	-	823	720	-	850	776	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.2	0.3	9.1	10.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	671	-	1069	1377	-	-	1578	-	-	783	-	1063
HCM Lane V/C Ratio	0.015	-	0.016	0.03	-	-	0.006	-	-	0.189	-	0.035
HCM Control Delay (s)	10.4	0	8.4	7.7	-	-	7.3	-	-	10.7	0	8.5
HCM Lane LOS	B	A	A	A	-	-	A	-	-	B	A	A
HCM 95th %tile Q(veh)	0	-	0.1	0.1	-	-	0	-	-	0.7	-	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	24	0	3	0	333	15	2	359	0
Future Vol, veh/h	0	0	0	24	0	3	0	333	15	2	359	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	70	-	0	160	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	26	0	3	0	362	16	2	390	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	758	756	195	561	756	362	390	0	0	362	0	0
Stage 1	394	394	-	362	362	-	-	-	-	-	-	-
Stage 2	364	362	-	199	394	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	309	337	814	424	337	682	1167	-	-	1195	-	-
Stage 1	603	604	-	656	624	-	-	-	-	-	-	-
Stage 2	654	624	-	785	604	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	307	336	814	424	336	682	1167	-	-	1195	-	-
Mov Cap-2 Maneuver	307	336	-	424	336	-	-	-	-	-	-	-
Stage 1	603	603	-	656	624	-	-	-	-	-	-	-
Stage 2	651	624	-	784	603	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	13.7	0	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1167	-	-	-	443	1195	-	-
HCM Lane V/C Ratio	-	-	-	-	0.066	0.002	-	-
HCM Control Delay (s)	0	-	-	0	13.7	8	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0	-	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	57	0	34	0	56	59	33	39	0
Future Vol, veh/h	0	0	0	57	0	34	0	56	59	33	39	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	62	0	37	0	61	64	36	42	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	226	239	42	175	175	61	42	0	0	125	0	0
Stage 1	114	114	-	61	61	-	-	-	-	-	-	-
Stage 2	112	125	-	114	114	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	729	662	1029	788	718	1004	1567	-	-	1462	-	-
Stage 1	891	801	-	950	844	-	-	-	-	-	-	-
Stage 2	893	792	-	891	801	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	689	645	1029	773	700	1004	1567	-	-	1462	-	-
Mov Cap-2 Maneuver	689	645	-	773	700	-	-	-	-	-	-	-
Stage 1	891	781	-	950	844	-	-	-	-	-	-	-
Stage 2	860	792	-	869	781	-	-	-	-	-	-	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	0	9.6	0	3.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NEL	NET	NER	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SWL	SWT	SWR
Capacity (veh/h)	1567	-	-	-	-	-	773	-	1004	1462	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	0.08	-	0.037	0.025	-	-
HCM Control Delay (s)	0	-	-	0	0	0	10.1	0	8.7	7.5	-	-
HCM Lane LOS	A	-	-	A	A	A	B	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	0.3	-	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	7.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	59	166	34	57	136
Future Vol, veh/h	33	59	166	34	57	136
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	64	180	37	62	148

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	100	0	465	68
Stage 1	-	-	-	-	68	-
Stage 2	-	-	-	-	397	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1493	-	556	995
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	679	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1493	-	488	995
Mov Cap-2 Maneuver	-	-	-	-	488	-
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	595	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.4	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	761	-	-	1493	-
HCM Lane V/C Ratio	0.276	-	-	0.121	-
HCM Control Delay (s)	11.5	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0.4	-

Intersection	
Int Delay, s/veh	20

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	169	170	0	0	200	86	29	0	154	0
Future Vol, veh/h	0	0	169	170	0	0	200	86	29	0	154	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	184	185	0	0	217	93	32	0	167	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	710	726	167	786	694	93	167	0	0	125	0	0
Stage 1	167	167	-	527	527	-	-	-	-	-	-	-
Stage 2	543	559	-	259	167	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	348	351	877	310	366	964	1411	-	-	1462	-	-
Stage 1	835	760	-	535	528	-	-	-	-	-	-	-
Stage 2	524	511	-	746	760	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	307	297	877	216	310	964	1411	-	-	1462	-	-
Mov Cap-2 Maneuver	307	297	-	216	310	-	-	-	-	-	-	-
Stage 1	706	760	-	453	447	-	-	-	-	-	-	-
Stage 2	443	432	-	590	760	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	75.6	5.1	0
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1411	-	-	-	-	877	216	-	-	1462	-	-
HCM Lane V/C Ratio	0.154	-	-	-	-	0.209	0.855	-	-	-	-	-
HCM Control Delay (s)	8	-	-	0	0	10.2	75.6	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	B	F	A	A	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-	-	0.8	6.6	-	-	0	-	-

Intersection	
Int Delay, s/veh	18.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	4	159	75	7	0	183	315	50	0	493	0
Future Vol, veh/h	0	4	159	75	7	0	183	315	50	0	493	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	100	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	173	82	8	0	199	342	54	0	536	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1307	1330	536	1365	1276	342	536	0	0	396	0	0
Stage 1	536	536	-	740	740	-	-	-	-	-	-	-
Stage 2	771	794	-	625	536	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	137	155	545	125	167	701	1032	-	-	1163	-	-
Stage 1	529	523	-	409	423	-	-	-	-	-	-	-
Stage 2	393	400	-	473	523	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	112	125	545	~ 71	135	701	1032	-	-	1163	-	-
Mov Cap-2 Maneuver	112	125	-	~ 71	135	-	-	-	-	-	-	-
Stage 1	427	523	-	330	341	-	-	-	-	-	-	-
Stage 2	310	323	-	320	523	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.1	235.4	3.1	0
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1032	-	-	-	125	545	71	135	-	1163	-	-
HCM Lane V/C Ratio	0.193	-	-	-	0.035	0.317	1.148	0.056	-	-	-	-
HCM Control Delay (s)	9.3	-	-	0	34.8	14.6	254.3	33.3	0	0	-	-
HCM Lane LOS	A	-	-	A	D	B	F	D	A	A	-	-
HCM 95th %tile Q(veh)	0.7	-	-	-	0.1	1.4	6.2	0.2	-	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	25	45	0	7	15	541	20	4	723	0
Future Vol, veh/h	0	0	25	45	0	7	15	541	20	4	723	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	27	49	0	8	16	588	22	4	786	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1429	1436	786	1428	1414	588	786	0	0	610	0	0
Stage 1	794	794	-	620	620	-	-	-	-	-	-	-
Stage 2	635	642	-	808	794	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	112	133	392	113	138	509	833	-	-	969	-	-
Stage 1	381	400	-	476	480	-	-	-	-	-	-	-
Stage 2	467	469	-	375	400	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	108	130	392	103	135	509	833	-	-	969	-	-
Mov Cap-2 Maneuver	108	130	-	103	135	-	-	-	-	-	-	-
Stage 1	374	398	-	467	471	-	-	-	-	-	-	-
Stage 2	451	460	-	348	398	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.9	60.7	0.2	0
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	833	-	-	-	-	392	103	-	509	969	-	-
HCM Lane V/C Ratio	0.02	-	-	-	-	0.069	0.475	-	0.015	0.004	-	-
HCM Control Delay (s)	9.4	-	-	0	0	14.9	68.2	0	12.2	8.7	-	-
HCM Lane LOS	A	-	-	A	A	B	F	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.2	2.1	-	0	0	-	-

1: Highland Blvd & Grant Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	48	30	0	10	52	518	79	16	840	4
Future Volume (veh/h)	3	0	48	30	0	10	52	518	79	16	840	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	0	52	33	0	11	57	563	86	17	913	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	2	127	261	3	33	129	706	102	492	1120	5
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	61	25	1495	1132	35	389	46	1173	169	782	1861	8
Grp Volume(v), veh/h	55	0	0	44	0	0	706	0	0	17	0	917
Grp Sat Flow(s),veh/h/ln	1581	0	0	1557	0	0	1388	0	0	782	0	1869
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	14.7
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.9	0.0	0.0	18.3	0.0	0.0	0.6	0.0	14.7
Prop In Lane	0.05		0.95	0.75		0.25	0.08		0.12	1.00		0.00
Lane Grp Cap(c), veh/h	234	0	0	297	0	0	937	0	0	492	0	1124
V/C Ratio(X)	0.24	0.00	0.00	0.15	0.00	0.00	0.75	0.00	0.00	0.03	0.00	0.82
Avail Cap(c_a), veh/h	963	0	0	947	0	0	1510	0	0	778	0	1805
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	0.0	16.4	0.0	0.0	5.4	0.0	0.0	3.2	0.0	6.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.3	0.0	0.0	1.7	0.0	0.0	0.0	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.8	0.0	0.0	16.5	0.0	0.0	5.9	0.0	0.0	3.2	0.0	6.6
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		55			44			706			934	
Approach Delay, s/veh		16.8			16.5			5.9			6.6	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	29.0	9.3	29.0	9.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	37.0	21.0	37.0	21.0
Max Q Clear Time (g_c+I1), s	20.3	3.3	16.7	2.9
Green Ext Time (p_c), s	2.8	0.1	3.7	0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	48	30	0	10	52	518	79	16	840	4
Future Volume (veh/h)	3	0	48	30	0	10	52	518	79	16	840	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	0	52	33	0	11	57	563	86	17	913	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	104	2	127	261	3	33	129	706	102	492	1120	5
HCM 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
Prop Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.60	0.60	0.60	0.60	0.60	0.60
Unsig. Movement Delay												
Ln Grp Delay, s/veh	16.8	0.0	0.0	16.5	0.0	0.0	5.9	0.0	0.0	3.2	0.0	6.6
Ln Grp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		55			44			706			934	
Approach Delay, s/veh		16.8			16.5			5.9			6.6	
Approach LOS		B			B			A			A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		8.0		6.0		8.0
Phs Duration (G+Y+Rc), s		29.0		9.3		29.0		9.3
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		37.0		21.0		37.0		21.0
Max Allow Headway (MAH), s		4.0		4.1		3.7		3.9
Max Q Clear (g_c+I1), s		20.3		3.3		16.7		2.9
Green Ext Time (g_e), s		2.8		0.1		3.7		0.1
Prob of Phs Call (p_c)		1.00		0.65		1.00		0.65
Prob of Max Out (p_x)		0.03		0.00		0.03		0.00
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		46		61		782		1132
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1173		25		1861		35
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		169		1495		8		389
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R		L+T+R		L		L+T+R

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	706	0	55	0	17	0	44
Grp Sat Flow (s), veh/h/ln	0	1388	0	1581	0	782	0	1557
Q Serve Time (g_s), s	0.0	3.6	0.0	0.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	18.3	0.0	1.3	0.0	0.6	0.0	0.9
Perm LT Sat Flow (s_l), veh/h/ln	0	619	0	1426	0	782	0	1374
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1865	0	434	0	1803
Perm LT Eff Green (g_p), s	0.0	23.0	0.0	3.3	0.0	23.0	0.0	3.3
Perm LT Serve Time (g_u), s	0.0	8.3	0.0	2.4	0.0	4.8	0.0	2.0
Perm LT Q Serve Time (g_ps), s	0.0	3.6	0.0	0.3	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	10.3	0.0	1.0	0.0	0.0	0.0	0.1
Serve Time pre Blk (g_fs), s	0.0	9.6	0.0	1.0	0.0	0.0	0.0	0.1
Prop LT Inside Lane (P_L)	0.00	0.08	0.00	0.05	0.00	1.00	0.00	0.75
Lane Grp Cap (c), veh/h	0	937	0	234	0	492	0	297
V/C Ratio (X)	0.00	0.75	0.00	0.24	0.00	0.03	0.00	0.15
Avail Cap (c_a), veh/h	0	1510	0	963	0	778	0	947
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	5.4	0.0	16.6	0.0	3.2	0.0	16.4
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.2	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.9	0.0	16.8	0.0	3.2	0.0	16.5
1st-Term Q (Q1), veh/ln	0.0	1.5	0.0	0.4	0.0	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.0	0.4	0.0	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.04	0.00	0.00	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment						T+R		
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	917	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1869	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.12	0.00	0.95	0.00	0.00	0.00	0.25
Lane Grp Cap (c), veh/h	0	0	0	0	0	1124	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1805	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

2: Highland Blvd & 11800 North

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	100	207	0	131	100	513	258	276	635	8
Future Volume (veh/h)	5	0	100	207	0	131	100	513	258	276	635	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	109	225	0	142	109	558	280	300	690	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	0	410	371	0	410	330	1047	887	353	1031	13
Arrive On Green	0.26	0.00	0.26	0.26	0.00	0.26	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1246	0	1585	1284	0	1585	747	1870	1585	656	1842	24
Grp Volume(v), veh/h	5	0	109	225	0	142	109	558	280	300	0	699
Grp Sat Flow(s),veh/h/ln	1246	0	1585	1284	0	1585	747	1870	1585	656	0	1866
Q Serve(g_s), s	0.2	0.0	3.6	11.2	0.0	4.8	8.0	12.4	6.2	24.6	0.0	17.4
Cycle Q Clear(g_c), s	5.0	0.0	3.6	14.8	0.0	4.8	25.4	12.4	6.2	37.0	0.0	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	341	0	410	371	0	410	330	1047	887	353	0	1044
V/C Ratio(X)	0.01	0.00	0.27	0.61	0.00	0.35	0.33	0.53	0.32	0.85	0.00	0.67
Avail Cap(c_a), veh/h	414	0	504	447	0	504	330	1047	887	353	0	1044
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	19.5	25.4	0.0	19.9	19.2	9.1	7.8	23.0	0.0	10.2
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.6	0.0	0.2	0.2	0.3	0.1	16.7	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.3	3.3	0.0	1.7	1.3	4.2	1.8	6.3	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	0.0	19.6	26.0	0.0	20.1	19.4	9.4	7.9	39.7	0.0	11.6
LnGrp LOS	C	A	B	C	A	C	B	A	A	D	A	B
Approach Vol, veh/h		114			367			947			999	
Approach Delay, s/veh		19.7			23.8			10.1			20.0	
Approach LOS		B			C			B			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	43.0	23.1	43.0	23.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	37.0	21.0	37.0	21.0
Max Q Clear Time (g_c+I1), s	27.4	7.0	39.0	16.8
Green Ext Time (p_c), s	2.0	0.2	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

2: Highland Blvd & 11800 North

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	100	207	0	131	100	513	258	276	635	8
Future Volume (veh/h)	5	0	100	207	0	131	100	513	258	276	635	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	109	225	0	142	109	558	280	300	690	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	341	0	410	371	0	410	330	1047	887	353	1031	13
HCM 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
Prop Arrive On Green	0.26	0.00	0.26	0.26	0.00	0.26	0.56	0.56	0.56	0.56	0.56	0.56
Unsig. Movement Delay												
Ln Grp Delay, s/veh	22.0	0.0	19.6	26.0	0.0	20.1	19.4	9.4	7.9	39.7	0.0	11.6
Ln Grp LOS	C	A	B	C	A	C	B	A	A	D	A	B
Approach Vol, veh/h		114			367			947			999	
Approach Delay, s/veh		19.7			23.8			10.1			20.0	
Approach LOS		B			C			B			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		5.0		6.0		6.0		6.0
Phs Duration (G+Y+Rc), s		43.0		23.1		43.0		23.1
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green (Gmax), s		37.0		21.0		37.0		21.0
Max Allow Headway (MAH), s		3.5		4.0		4.1		3.1
Max Q Clear (g_c+I1), s		27.4		7.0		39.0		16.8
Green Ext Time (g_e), s		2.0		0.2		0.0		0.3
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.17		0.00		1.00		0.45
Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		747		1246		656		1284
Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1870		0		1842		0
Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		24		1585
Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	109	0	5	0	300	0	225
Grp Sat Flow (s), veh/h/ln	0	747	0	1246	0	656	0	1284
Q Serve Time (g_s), s	0.0	8.0	0.0	0.2	0.0	24.6	0.0	11.2
Cycle Q Clear Time (g_c), s	0.0	25.4	0.0	5.0	0.0	37.0	0.0	14.8
Perm LT Sat Flow (s_l), veh/h/ln	0	747	0	1246	0	656	0	1284
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	37.0	0.0	17.1	0.0	37.0	0.0	17.1
Perm LT Serve Time (g_u), s	0.0	19.6	0.0	12.3	0.0	24.6	0.0	13.5
Perm LT Q Serve Time (g_ps), s	0.0	8.0	0.0	0.2	0.0	24.6	0.0	11.2
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	330	0	341	0	353	0	371
V/C Ratio (X)	0.00	0.33	0.00	0.01	0.00	0.85	0.00	0.61
Avail Cap (c_a), veh/h	0	330	0	414	0	353	0	447
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.2	0.0	22.0	0.0	23.0	0.0	25.4
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	16.7	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.4	0.0	22.0	0.0	39.7	0.0	26.0
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	0.1	0.0	4.6	0.0	3.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.3	0.0	0.1	0.0	6.3	0.0	3.3
%ile Storage Ratio (RQ%)	0.00	0.33	0.00	0.02	0.00	1.59	0.00	0.83
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T						
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	558	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	12.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	12.4	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1047	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1047	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	280	0	109	0	699	0	142
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1866	0	1585
Q Serve Time (g_s), s	0.0	6.2	0.0	3.6	0.0	17.4	0.0	4.8
Cycle Q Clear Time (g_c), s	0.0	6.2	0.0	3.6	0.0	17.4	0.0	4.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.01	0.00	1.00
Lane Grp Cap (c), veh/h	0	887	0	410	0	1044	0	410
V/C Ratio (X)	0.00	0.32	0.00	0.27	0.00	0.67	0.00	0.35
Avail Cap (c_a), veh/h	0	887	0	504	0	1044	0	504
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.8	0.0	19.5	0.0	10.2	0.0	19.9
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.1	0.0	1.4	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.9	0.0	19.6	0.0	11.6	0.0	20.1
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	1.3	0.0	5.8	0.0	1.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	1.3	0.0	6.2	0.0	1.7
%ile Storage Ratio (RQ%)	0.00	0.23	0.00	0.06	0.00	0.08	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		16.7						
HCM 6th LOS		B						

3: Highland Blvd & SR - 92

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	450	2115	55	237	849	166	131	255	258	278	219	343
Future Volume (veh/h)	450	2115	55	237	849	166	131	255	258	278	219	343
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	489	2299	60	258	923	180	142	277	0	302	238	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	546	2423	752	633	1799	802	199	448		353	513	
Arrive On Green	0.16	0.47	0.47	0.18	0.51	0.51	0.13	0.13	0.00	0.10	0.27	0.00
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	1142	3554	1585	3456	1870	1585
Grp Volume(v), veh/h	489	2299	60	258	923	180	142	277	0	302	238	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1142	1777	1585	1728	1870	1585
Q Serve(g_s), s	18.0	55.9	2.7	8.6	22.5	8.2	16.1	9.6	0.0	11.2	13.8	0.0
Cycle Q Clear(g_c), s	18.0	55.9	2.7	8.6	22.5	8.2	16.1	9.6	0.0	11.2	13.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	546	2423	752	633	1799	802	199	448		353	513	
V/C Ratio(X)	0.90	0.95	0.08	0.41	0.51	0.22	0.71	0.62		0.86	0.46	
Avail Cap(c_a), veh/h	704	2423	752	633	1799	802	199	448		372	524	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.7	32.6	18.6	46.9	21.4	17.9	56.7	53.8	0.0	57.4	39.2	0.0
Incr Delay (d2), s/veh	10.2	9.7	0.2	0.2	1.1	0.6	9.7	1.9	0.0	16.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	23.4	1.0	3.6	9.0	3.2	5.2	4.4	0.0	5.7	6.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.9	42.3	18.9	47.0	22.5	18.5	66.4	55.7	0.0	74.3	39.5	0.0
LnGrp LOS	E	D	B	D	C	B	E	E		E	D	
Approach Vol, veh/h		2848			1361			419	A		540	A
Approach Delay, s/veh		45.5			26.6			59.4			59.0	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	27.0	73.2	19.3	24.0	31.3	69.0		43.3
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green Setting (Gmax), s	* 23	* 46	14.0	16.4	* 11	* 62		36.4
Max Q Clear Time (g_c+I1), s	20.0	24.5	13.2	18.1	10.6	57.9		15.8
Green Ext Time (p_c), s	0.5	3.6	0.1	0.0	0.0	3.0		0.5

Intersection Summary	
HCM 6th Ctrl Delay	43.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	450	2115	55	237	849	166	131	255	258	278	219	343
Future Volume (veh/h)	450	2115	55	237	849	166	131	255	258	278	219	343
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	489	2299	60	258	923	180	142	277	0	302	238	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	546	2423	752	633	1799	802	199	448		353	513	
HCM 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
Prop Arrive On Green	0.16	0.47	0.47	0.18	0.51	0.51	0.13	0.13	0.00	0.10	0.27	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	63.9	42.3	18.9	47.0	22.5	18.5	66.4	55.7	0.0	74.3	39.5	0.0
Ln Grp LOS	E	D	B	D	C	B	E	E		E	D	
Approach Vol, veh/h		2848			1361			419			540	
Approach Delay, s/veh		45.5			26.6			59.4			59.0	
Approach LOS		D			C			E			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	6	5		8
Case No	2.0	3.0	2.0	5.3	3.0	2.0		3.0
Phs Duration (G+Y+Rc), s	27.0	73.2	19.3	24.0	69.0	31.3		43.3
Change Period (Y+Rc), s	* 6.5	* 7.3	6.0	7.6	* 7.3	* 7.3		7.6
Max Green (Gmax), s	* 27	* 46	14.0	16.4	* 62	* 11		36.4
Max Allow Headway (MAH), s	2.5	3.5	3.8	3.1	3.6	1.3		3.4
Max Q Clear (g_c+I1), s	20.0	24.5	13.2	18.1	57.9	10.6		15.8
Green Ext Time (g_e), s	0.5	3.6	0.1	0.0	3.0	0.0		0.5
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00		1.00
Prob of Max Out (p_x)	0.02	0.00	1.00	1.00	0.00	1.00		0.00

Left-Turn Movement Data						
Assigned Mvmt	1		3	7		5
Mvmt Sat Flow, veh/h	3456		3456	1142		3456

Through Movement Data								
Assigned Mvmt			2		4	6		8
Mvmt Sat Flow, veh/h			3554		3554	5106		1870

Right-Turn Movement Data								
Assigned Mvmt			12		14	16		18
Mvmt Sat Flow, veh/h			1585		1585	1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	7	0	5	0	0
Lane Assignment	L (Prot)		L (Prot)	L		L (Prot)		

Lanes in Grp	2	0	2	1	0	2	0	0
Grp Vol (v), veh/h	489	0	302	142	0	258	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	1728	1142	0	1728	0	0
Q Serve Time (g_s), s	18.0	0.0	11.2	16.1	0.0	8.6	0.0	0.0
Cycle Q Clear Time (g_c), s	18.0	0.0	11.2	16.1	0.0	8.6	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1142	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	16.4	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	16.4	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	16.1	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	546	0	353	199	0	633	0	0
V/C Ratio (X)	0.90	0.00	0.86	0.71	0.00	0.41	0.00	0.00
Avail Cap (c_a), veh/h	704	0	372	199	0	633	0	0
Upstream Filter (I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	53.7	0.0	57.4	56.7	0.0	46.9	0.0	0.0
Incr Delay (d2), s/veh	10.2	0.0	16.9	9.7	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	63.9	0.0	74.3	66.4	0.0	47.0	0.0	0.0
1st-Term Q (Q1), veh/ln	7.6	0.0	4.9	4.7	0.0	3.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.8	0.0	0.8	0.5	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	8.4	0.0	5.7	5.2	0.0	3.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.49	0.00	0.66	0.82	0.00	0.34	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	6	0	0	8
Lane Assignment		T		T	T			T
Lanes in Grp	0	2	0	2	3	0	0	1
Grp Vol (v), veh/h	0	923	0	277	2299	0	0	238
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	1702	0	0	1870
Q Serve Time (g_s), s	0.0	22.5	0.0	9.6	55.9	0.0	0.0	13.8
Cycle Q Clear Time (g_c), s	0.0	22.5	0.0	9.6	55.9	0.0	0.0	13.8
Lane Grp Cap (c), veh/h	0	1799	0	448	2423	0	0	513
V/C Ratio (X)	0.00	0.51	0.00	0.62	0.95	0.00	0.00	0.46
Avail Cap (c_a), veh/h	0	1799	0	448	2423	0	0	524
Upstream Filter (I)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.4	0.0	53.8	32.6	0.0	0.0	39.2
Incr Delay (d2), s/veh	0.0	1.1	0.0	1.9	9.7	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.5	0.0	55.7	42.3	0.0	0.0	39.5
1st-Term Q (Q1), veh/ln	0.0	8.8	0.0	4.3	21.2	0.0	0.0	6.4
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.1	2.2	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	9.0	0.0	4.4	23.4	0.0	0.0	6.4
%ile Storage Ratio (RQ%)	0.00	0.18	0.00	0.18	0.48	0.00	0.00	0.74
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	16	0	0	18
Lane Assignment		R		R	R			R
Lanes in Grp	0	1	0	1	1	0	0	1
Grp Vol (v), veh/h	0	180	0	0	60	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	1585	0	0	1585
Q Serve Time (g_s), s	0.0	8.2	0.0	0.0	2.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	8.2	0.0	0.0	2.7	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	802	0	200	752	0	0	435
V/C Ratio (X)	0.00	0.22	0.00	0.00	0.08	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	802	0	200	752	0	0	444
Upstream Filter (I)	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	17.9	0.0	0.0	18.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.5	0.0	0.0	18.9	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.0	0.0	0.0	0.9	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.2	0.0	0.0	1.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.30	0.00	0.00	0.02	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	43.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	2227	436	290	1031	2	369	15	218	175	255	682
Future Volume (veh/h)	22	2227	436	290	1031	2	369	15	218	175	255	682
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	2421	474	315	1121	2	401	16	237	190	277	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1025	3496	1085	364	1733	773	420	501	223	241	298	
Arrive On Green	0.30	0.68	0.68	0.11	0.49	0.49	0.12	0.14	0.14	0.07	0.08	0.00
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	24	2421	474	315	1121	2	401	16	237	190	277	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	0.6	37.0	16.0	11.7	30.7	0.1	15.0	0.5	18.3	7.0	10.1	0.0
Cycle Q Clear(g_c), s	0.6	37.0	16.0	11.7	30.7	0.1	15.0	0.5	18.3	7.0	10.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1025	3496	1085	364	1733	773	420	501	223	241	298	
V/C Ratio(X)	0.02	0.69	0.44	0.87	0.65	0.00	0.95	0.03	1.06	0.79	0.93	
Avail Cap(c_a), veh/h	1025	3496	1085	375	1733	773	420	501	223	362	298	
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.4	12.3	7.7	57.3	24.9	19.3	56.7	48.2	55.8	59.5	59.2	0.0
Incr Delay (d2), s/veh	0.0	1.2	1.3	17.6	1.9	0.0	32.1	0.0	77.1	3.4	33.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	12.1	5.5	5.8	12.5	0.0	8.4	0.2	12.1	3.2	5.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	13.4	9.0	74.8	26.8	19.3	88.9	48.2	133.0	62.9	92.8	0.0
LnGrp LOS	C	B	A	E	C	B	F	D	F	E	F	
Approach Vol, veh/h		2919			1438			654			467	A
Approach Delay, s/veh		12.9			37.3			103.9			80.7	
Approach LOS		B			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	47.1	70.0	15.5	24.5	19.6	97.5	22.0	18.0
Change Period (Y+Rc), s	7.7	* 6.6	6.4	* 6.2	5.9	* 7.7	6.2	* 7.1
Max Green Setting (Gmax), s	12.3	* 63	13.6	* 14	14.1	* 64	15.8	* 11
Max Q Clear Time (g_c+I1), s	12.6	32.7	9.0	20.3	13.7	39.0	17.0	12.1
Green Ext Time (p_c), s	0.0	4.5	0.0	0.0	0.0	14.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	2227	436	290	1031	2	369	15	218	175	255	682
Future Volume (veh/h)	22	2227	436	290	1031	2	369	15	218	175	255	682
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	2421	474	315	1121	2	401	16	237	190	277	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	1025	3496	1085	364	1733	773	420	501	223	241	298	
HCM 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
Prop Arrive On Green	0.30	0.68	0.68	0.11	0.49	0.49	0.12	0.14	0.14	0.07	0.08	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	32.4	13.4	9.0	74.8	26.8	19.3	88.9	48.2	133.0	62.9	92.8	0.0
Ln Grp LOS	C	B	A	E	C	B	F	D	F	E	F	
Approach Vol, veh/h		2919			1438			654			467	
Approach Delay, s/veh		12.9			37.3			103.9			80.7	
Approach LOS		B			D			F			F	

Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		2	1	3	4	5	6	8	7			
Case No		3.0	2.0	2.0	3.0	2.0	3.0	3.0	2.0			
Phs Duration (G+Y+Rc), s		70.0	47.1	15.5	24.5	19.6	97.5	18.0	22.0			
Change Period (Y+Rc), s		* 6.6	7.7	6.4	* 6.2	5.9	* 7.7	* 7.1	6.2			
Max Green (Gmax), s		* 63	12.3	13.6	* 14	14.1	* 64	* 11	15.8			
Max Allow Headway (MAH), s		3.6	1.3	1.6	2.3	1.3	3.5	3.1	1.4			
Max Q Clear (g_c+I1), s		32.7	2.6	9.0	20.3	13.7	39.0	12.1	17.0			
Green Ext Time (g_e), s		4.5	0.0	0.0	0.0	0.0	14.1	0.0	0.0			
Prob of Phs Call (p_c)		1.00	0.58	1.00	1.00	1.00	1.00	1.00	1.00			
Prob of Max Out (p_x)		0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00			

Left-Turn Movement Data												
Assigned Mvmt			1	3		5			7			
Mvmt Sat Flow, veh/h			3456	3456		3456			3456			

Through Movement Data												
Assigned Mvmt		2			4		6	8				
Mvmt Sat Flow, veh/h		3554			3554		5106	3554				

Right-Turn Movement Data												
Assigned Mvmt		12			14		16	18				
Mvmt Sat Flow, veh/h		1585			1585		1585	1585				

Left Lane Group Data												
Assigned Mvmt		0	1	3	0	5	0	0	7			
Lane Assignment			L (Prot)	L (Prot)		L (Prot)			L (Prot)			

Lanes in Grp	0	2	2	0	2	0	0	2
Grp Vol (v), veh/h	0	24	190	0	315	0	0	401
Grp Sat Flow (s), veh/h/ln	0	1728	1728	0	1728	0	0	1728
Q Serve Time (g_s), s	0.0	0.6	7.0	0.0	11.7	0.0	0.0	15.0
Cycle Q Clear Time (g_c), s	0.0	0.6	7.0	0.0	11.7	0.0	0.0	15.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1025	241	0	364	0	0	420
V/C Ratio (X)	0.00	0.02	0.79	0.00	0.87	0.00	0.00	0.95
Avail Cap (c_a), veh/h	0	1025	362	0	375	0	0	420
Upstream Filter (I)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	32.4	59.5	0.0	57.3	0.0	0.0	56.7
Incr Delay (d2), s/veh	0.0	0.0	3.4	0.0	17.6	0.0	0.0	32.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	32.4	62.9	0.0	74.8	0.0	0.0	88.9
1st-Term Q (Q1), veh/ln	0.0	0.3	3.1	0.0	4.9	0.0	0.0	6.5
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.9	0.0	0.0	1.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	3.2	0.0	5.8	0.0	0.0	8.4
%ile Storage Ratio (RQ%)	0.00	0.03	0.35	0.00	0.66	0.00	0.00	0.82
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	2	0	0	4	0	6	8	0
Lane Assignment	T			T		T	T	
Lanes in Grp	2	0	0	2	0	3	2	0
Grp Vol (v), veh/h	1121	0	0	16	0	2421	277	0
Grp Sat Flow (s), veh/h/ln	1777	0	0	1777	0	1702	1777	0
Q Serve Time (g_s), s	30.7	0.0	0.0	0.5	0.0	37.0	10.1	0.0
Cycle Q Clear Time (g_c), s	30.7	0.0	0.0	0.5	0.0	37.0	10.1	0.0
Lane Grp Cap (c), veh/h	1733	0	0	501	0	3496	298	0
V/C Ratio (X)	0.65	0.00	0.00	0.03	0.00	0.69	0.93	0.00
Avail Cap (c_a), veh/h	1733	0	0	501	0	3496	298	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	24.9	0.0	0.0	48.2	0.0	12.3	59.2	0.0
Incr Delay (d2), s/veh	1.9	0.0	0.0	0.0	0.0	1.2	33.7	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.8	0.0	0.0	48.2	0.0	13.4	92.8	0.0
1st-Term Q (Q1), veh/ln	12.1	0.0	0.0	0.2	0.0	11.7	4.5	0.0
2nd-Term Q (Q2), veh/ln	0.5	0.0	0.0	0.0	0.0	0.4	1.4	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	12.5	0.0	0.0	0.2	0.0	12.1	5.9	0.0
%ile Storage Ratio (RQ%)	0.30	0.00	0.00	0.01	0.00	0.62	0.19	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	12	0	0	14	0	16	18	0
Lane Assignment	R			R		R	R	
Lanes in Grp	1	0	0	1	0	1	1	0
Grp Vol (v), veh/h	2	0	0	237	0	474	0	0
Grp Sat Flow (s), veh/h/ln	1585	0	0	1585	0	1585	1585	0
Q Serve Time (g_s), s	0.1	0.0	0.0	18.3	0.0	16.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.1	0.0	0.0	18.3	0.0	16.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	773	0	0	223	0	1085	133	0
V/C Ratio (X)	0.00	0.00	0.00	1.06	0.00	0.44	0.00	0.00
Avail Cap (c_a), veh/h	773	0	0	223	0	1085	133	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	19.3	0.0	0.0	55.8	0.0	7.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	77.1	0.0	1.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	19.3	0.0	0.0	133.0	0.0	9.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.3	0.0	5.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	4.8	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	12.1	0.0	5.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	1.18	0.00	0.62	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

5: Center Street/8000 West & SR - 92

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	1196	191	184	757	434	489	141	317	373	119	164
Future Volume (veh/h)	214	1196	191	184	757	434	489	141	317	373	119	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	233	1300	208	200	823	472	532	153	0	405	129	178
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	285	1576	703	252	1543	688	578	270		433	191	162
Arrive On Green	0.08	0.44	0.44	0.07	0.43	0.43	0.17	0.14	0.00	0.13	0.10	0.10
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	1870	1585	3456	1870	1585
Grp Volume(v), veh/h	233	1300	208	200	823	472	532	153	0	405	129	178
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1870	1585	1728	1870	1585
Q Serve(g_s), s	8.6	41.7	10.9	7.4	22.2	31.2	19.7	9.9	0.0	15.1	8.6	13.3
Cycle Q Clear(g_c), s	8.6	41.7	10.9	7.4	22.2	31.2	19.7	9.9	0.0	15.1	8.6	13.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	285	1576	703	252	1543	688	578	270		433	191	162
V/C Ratio(X)	0.82	0.82	0.30	0.79	0.53	0.69	0.92	0.57		0.93	0.67	1.10
Avail Cap(c_a), veh/h	362	1576	703	335	1543	688	593	278		433	191	162
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.7	31.7	23.2	59.3	27.1	29.6	53.3	51.8	0.0	56.3	56.3	58.3
Incr Delay (d2), s/veh	8.9	5.0	1.1	6.7	1.3	5.5	19.0	1.5	0.0	27.2	7.4	99.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	17.8	4.3	3.4	9.2	12.8	10.1	4.8	0.0	8.2	4.5	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	36.8	24.2	66.0	28.4	35.1	72.2	53.3	0.0	83.5	63.7	157.6
LnGrp LOS	E	D	C	E	C	D	E	D		F	E	F
Approach Vol, veh/h		1741			1495			685	A		712	
Approach Delay, s/veh		39.4			35.6			68.0			98.4	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	63.4	23.0	25.5	16.9	64.7	28.5	20.0
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green Setting (Gmax), s	* 14	53.0	* 16	* 19	* 13	54.0	* 22	* 13
Max Q Clear Time (g_c+I1), s	10.6	33.2	17.1	11.9	9.4	43.7	21.7	15.3
Green Ext Time (p_c), s	0.1	3.8	0.0	0.3	0.1	4.3	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	1196	191	184	757	434	489	141	317	373	119	164
Future Volume (veh/h)	214	1196	191	184	757	434	489	141	317	373	119	164
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	233	1300	208	200	823	472	532	153	0	405	129	178
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	285	1576	703	252	1543	688	578	270		433	191	162
HCM 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
Prop Arrive On Green	0.08	0.44	0.44	0.07	0.43	0.43	0.17	0.14	0.00	0.13	0.10	0.10
Unsig. Movement Delay												
Ln Grp Delay, s/veh	67.6	36.8	24.2	66.0	28.4	35.1	72.2	53.3	0.0	83.5	63.7	157.6
Ln Grp LOS	E	D	C	E	C	D	E	D		F	E	F
Approach Vol, veh/h		1741			1495			685			712	
Approach Delay, s/veh		39.4			35.6			68.0			98.4	
Approach LOS		D			D			E			F	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	18.1	63.4	23.0	25.5	16.9	64.7	28.5	20.0
Change Period (Y+Rc), s	* 7.4	7.0	* 6.7	* 6.7	* 7.4	7.0	* 6.7	* 6.7
Max Green (Gmax), s	* 14	53.0	* 16	* 19	* 13	54.0	* 22	* 13
Max Allow Headway (MAH), s	2.2	3.4	2.3	4.3	2.2	3.6	2.2	3.5
Max Q Clear (g_c+I1), s	10.6	33.2	17.1	11.9	9.4	43.7	21.7	15.3
Green Ext Time (g_e), s	0.1	3.8	0.0	0.3	0.1	4.3	0.1	0.0
Prob of Phs Call (p_c)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	0.24	0.00	1.00	0.09	0.15	0.00	1.00	1.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	3456		3456		3456		3456	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3554		1870		3554		1870

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1585		1585		1585		1585

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Prot)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	2	0	2	0	2	0	2	0
Grp Vol (v), veh/h	233	0	405	0	200	0	532	0
Grp Sat Flow (s), veh/h/ln	1728	0	1728	0	1728	0	1728	0
Q Serve Time (g_s), s	8.6	0.0	15.1	0.0	7.4	0.0	19.7	0.0
Cycle Q Clear Time (g_c), s	8.6	0.0	15.1	0.0	7.4	0.0	19.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	285	0	433	0	252	0	578	0
V/C Ratio (X)	0.82	0.00	0.93	0.00	0.79	0.00	0.92	0.00
Avail Cap (c_a), veh/h	362	0	433	0	335	0	593	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	58.7	0.0	56.3	0.0	59.3	0.0	53.3	0.0
Incr Delay (d2), s/veh	8.9	0.0	27.2	0.0	6.7	0.0	19.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	67.6	0.0	83.5	0.0	66.0	0.0	72.2	0.0
1st-Term Q (Q1), veh/ln	3.7	0.0	6.6	0.0	3.2	0.0	8.6	0.0
2nd-Term Q (Q2), veh/ln	0.4	0.0	1.6	0.0	0.2	0.0	1.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	4.0	0.0	8.2	0.0	3.4	0.0	10.1	0.0
%ile Storage Ratio (RQ%)	0.20	0.00	1.04	0.00	0.35	0.00	0.99	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	823	0	153	0	1300	0	129
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	22.2	0.0	9.9	0.0	41.7	0.0	8.6
Cycle Q Clear Time (g_c), s	0.0	22.2	0.0	9.9	0.0	41.7	0.0	8.6
Lane Grp Cap (c), veh/h	0	1543	0	270	0	1576	0	191
V/C Ratio (X)	0.00	0.53	0.00	0.57	0.00	0.82	0.00	0.67
Avail Cap (c_a), veh/h	0	1543	0	278	0	1576	0	191
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	27.1	0.0	51.8	0.0	31.7	0.0	56.3
Incr Delay (d2), s/veh	0.0	1.3	0.0	1.5	0.0	5.0	0.0	7.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.4	0.0	53.3	0.0	36.8	0.0	63.7
1st-Term Q (Q1), veh/ln	0.0	8.9	0.0	4.7	0.0	16.7	0.0	4.1
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.1	0.0	1.1	0.0	0.4

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	9.2	0.0	4.8	0.0	17.8	0.0	4.5
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.26	0.00	0.43	0.00	0.33
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	472	0	0	0	208	0	178
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	31.2	0.0	0.0	0.0	10.9	0.0	13.3
Cycle Q Clear Time (g_c), s	0.0	31.2	0.0	0.0	0.0	10.9	0.0	13.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	688	0	229	0	703	0	162
V/C Ratio (X)	0.00	0.69	0.00	0.00	0.00	0.30	0.00	1.10
Avail Cap (c_a), veh/h	0	688	0	235	0	703	0	162
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	29.6	0.0	0.0	0.0	23.2	0.0	58.3
Incr Delay (d2), s/veh	0.0	5.5	0.0	0.0	0.0	1.1	0.0	99.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	35.1	0.0	0.0	0.0	24.2	0.0	157.6
1st-Term Q (Q1), veh/ln	0.0	11.8	0.0	0.0	0.0	4.1	0.0	5.3
2nd-Term Q (Q2), veh/ln	0.0	1.1	0.0	0.0	0.0	0.2	0.0	4.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	12.8	0.0	0.0	0.0	4.3	0.0	9.8
%ile Storage Ratio (RQ%)	0.00	1.33	0.00	0.00	0.00	0.21	0.00	2.49
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th Edition computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

6: SR - 92 & 500 West

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	132	0	1246	164	219	235
Future Volume (veh/h)	132	0	1246	164	219	235
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	0	1354	178	238	255
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	292	0	2429	1083	247	219
Arrive On Green	0.04	0.00	0.68	0.68	0.14	0.14
Sat Flow, veh/h	1781	143	3647	1585	1781	1585
Grp Volume(v), veh/h	143	10.2	1354	178	238	255
Grp Sat Flow(s),veh/h/ln	1781	B	1777	1585	1781	1585
Q Serve(g_s), s	3.1		25.3	5.2	17.3	18.0
Cycle Q Clear(g_c), s	3.1		25.3	5.2	17.3	18.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	292		2429	1083	247	219
V/C Ratio(X)	0.49		0.56	0.16	0.96	1.16
Avail Cap(c_a), veh/h	345		2429	1083	247	219
HCM Platoon Ratio	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.7		10.5	7.3	55.7	56.0
Incr Delay (d2), s/veh	0.5		0.9	0.3	47.1	111.4
Initial Q Delay(d3),s/veh	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0		8.7	1.6	11.0	14.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.2		11.4	7.7	102.8	167.4
LnGrp LOS	B		B	A	F	F
Approach Vol, veh/h			1532		493	
Approach Delay, s/veh			11.0		136.2	
Approach LOS			B		F	

Timer - Assigned Phs	1	2				8
Phs Duration (G+Y+Rc), s	11.1	94.9				24.0
Change Period (Y+Rc), s	6.0	6.0				6.0
Max Green Setting (Gmax), s	9.0	85.0				18.0
Max Q Clear Time (g_c+I1), s	5.1	27.3				20.0
Green Ext Time (p_c), s	0.0	5.1				0.0

Intersection Summary	
HCM 6th Ctrl Delay	39.4
HCM 6th LOS	D

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	132	0	1246	164	219	235
Future Volume (veh/h)	132	0	1246	164	219	235
Number	1	6	2	12	3	18
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00			1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	0	1354	178	238	255
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	292	0	2429	1083	247	219
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.00	0.68	0.68	0.14	0.14
Unsig. Movement Delay						
Ln Grp Delay, s/veh	10.2	0.0	11.4	7.7	102.8	167.4
Ln Grp LOS	B	A	B	A	F	F
Approach Vol, veh/h		143	1532		493	
Approach Delay, s/veh		10.2	11.0		136.2	
Approach LOS		B	B		F	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	8					
Case No	1.2	7.0	9.0					
Phs Duration (G+Y+Rc), s	11.1	94.9	24.0					
Change Period (Y+Rc), s	6.0	6.0	6.0					
Max Green (Gmax), s	9.0	85.0	18.0					
Max Allow Headway (MAH), s	2.2	3.2	2.4					
Max Q Clear (g_c+I1), s	5.1	27.3	20.0					
Green Ext Time (g_e), s	0.0	5.1	0.0					
Prob of Phs Call (p_c)	0.99	1.00	1.00					
Prob of Max Out (p_x)	0.06	0.00	1.00					

Left-Turn Movement Data			
Assigned Mvmt	1	5	3
Mvmt Sat Flow, veh/h	1781	0	1781

Through Movement Data		
Assigned Mvmt	2	8
Mvmt Sat Flow, veh/h	3647	0

Right-Turn Movement Data		
Assigned Mvmt	12	18
Mvmt Sat Flow, veh/h	1585	1585

Left Lane Group Data								
Assigned Mvmt	1	5	3	0	0	0	0	0
Lane Assignment	L (Pr/Pm)		L					

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	143	0	238	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	0	0	0	0
Q Serve Time (g_s), s	3.1	0.0	17.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	3.1	0.0	17.3	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	339	0	1781	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	88.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	63.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	18.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	88.9	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	292	0	247	0	0	0	0	0
V/C Ratio (X)	0.49	0.00	0.96	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	345	0	247	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	9.7	0.0	55.7	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	47.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	10.2	0.0	102.8	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	1.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	1.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.64	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	0	0	0
Lane Assignment		T						
Lanes in Grp	0	2	0	0	0	0	0	0
Grp Vol (v), veh/h	0	1354	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2429	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2429	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.4	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	8.4	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	0	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	178	255	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	5.2	18.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.2	18.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1083	219	0	0	0	0	0
V/C Ratio (X)	0.00	0.16	1.16	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1083	219	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.3	56.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	111.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.7	167.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.5	7.2	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	6.8	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.6	14.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.38	0.81	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	8.9	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Intersection Summary								
HCM 6th Ctrl Delay		39.4						
HCM 6th LOS		D						

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	10	148	123	1	1	26	186	83	0	342	27
Future Vol, veh/h	25	10	148	123	1	1	26	186	83	0	342	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	65	-	-	0	-	-	110	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	11	161	134	1	1	28	202	90	0	372	29

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	545	735	201	495	704	146	401	0	0	292	0	0
Stage 1	387	387	-	303	303	-	-	-	-	-	-	-
Stage 2	158	348	-	192	401	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	421	345	806	457	360	875	1154	-	-	1267	-	-
Stage 1	608	608	-	681	662	-	-	-	-	-	-	-
Stage 2	828	633	-	791	599	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	412	337	806	350	351	875	1154	-	-	1267	-	-
Mov Cap-2 Maneuver	412	337	-	350	351	-	-	-	-	-	-	-
Stage 1	593	608	-	665	646	-	-	-	-	-	-	-
Stage 2	806	618	-	622	599	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	21.4	0.7	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1154	-	-	412	741	350	501	1267	-	-
HCM Lane V/C Ratio	0.024	-	-	0.066	0.232	0.382	0.004	-	-	-
HCM Control Delay (s)	8.2	-	-	14.4	11.3	21.5	12.2	0	-	-
HCM Lane LOS	A	-	-	B	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.9	1.7	0	0	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	151	60	119	0	1	251
Future Vol, veh/h	151	60	119	0	1	251
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	164	65	129	0	1	273

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	129	0	-	0	490	65
Stage 1	-	-	-	-	129	-
Stage 2	-	-	-	-	361	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1454	-	-	-	507	986
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	676	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1454	-	-	-	450	986
Mov Cap-2 Maneuver	-	-	-	-	450	-
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	676	-

Approach	EB	WB	SB
HCM Control Delay, s	5.6	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1454	-	-	-	981
HCM Lane V/C Ratio	0.113	-	-	-	0.279
HCM Control Delay (s)	7.8	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	1.1

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	1	30	145	2	1	11	68	73	0	77	1
Future Vol, veh/h	7	1	30	145	2	1	11	68	73	0	77	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	1	33	158	2	1	12	74	79	0	84	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	224	262	85	240	223	114	85	0	0	153	0	0
Stage 1	85	85	-	138	138	-	-	-	-	-	-	-
Stage 2	139	177	-	102	85	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	732	643	974	714	676	939	1512	-	-	1428	-	-
Stage 1	923	824	-	865	782	-	-	-	-	-	-	-
Stage 2	864	753	-	904	824	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	725	637	974	685	670	939	1512	-	-	1428	-	-
Mov Cap-2 Maneuver	725	637	-	685	670	-	-	-	-	-	-	-
Stage 1	915	824	-	857	775	-	-	-	-	-	-	-
Stage 2	853	746	-	873	824	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	11.8	0.5	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1512	-	-	904	686	1428	-	-
HCM Lane V/C Ratio	0.008	-	-	0.046	0.235	-	-	-
HCM Control Delay (s)	7.4	0	-	9.2	11.8	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.9	0	-	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	41	23	41	37	64	19	0	33	82	0	19
Future Vol, veh/h	15	41	23	41	37	64	19	0	33	82	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	45	25	45	40	70	21	0	36	89	0	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	110	0	0	70	0	0	253	277	45	238	232	40
Stage 1	-	-	-	-	-	-	77	77	-	130	130	-
Stage 2	-	-	-	-	-	-	176	200	-	108	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1480	-	-	1531	-	-	700	631	1025	716	668	1031
Stage 1	-	-	-	-	-	-	932	831	-	874	789	-
Stage 2	-	-	-	-	-	-	826	736	-	897	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1480	-	-	1531	-	-	665	606	1025	670	641	1031
Mov Cap-2 Maneuver	-	-	-	-	-	-	665	606	-	670	641	-
Stage 1	-	-	-	-	-	-	922	822	-	864	766	-
Stage 2	-	-	-	-	-	-	786	715	-	856	802	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	2.1	9.3	10.7
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	665	-	1025	1480	-	-	1531	-	-	670	-	1031
HCM Lane V/C Ratio	0.031	-	0.035	0.011	-	-	0.029	-	-	0.133	-	0.02
HCM Control Delay (s)	10.6	0	8.6	7.5	-	-	7.4	-	-	11.2	0	8.6
HCM Lane LOS	B	A	A	A	-	-	A	-	-	B	A	A
HCM 95th %tile Q(veh)	0.1	-	0.1	0	-	-	0.1	-	-	0.5	-	0.1

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	52	0	6	0	225	64	8	402	0
Future Vol, veh/h	0	0	0	52	0	6	0	225	64	8	402	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	70	-	0	160	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	57	0	7	0	245	70	9	437	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	704	700	219	482	700	245	437	0	0	245	0	0
Stage 1	455	455	-	245	245	-	-	-	-	-	-	-
Stage 2	249	245	-	237	455	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	337	363	786	481	363	793	1121	-	-	1320	-	-
Stage 1	555	568	-	758	703	-	-	-	-	-	-	-
Stage 2	754	703	-	746	568	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	333	360	786	479	360	793	1121	-	-	1320	-	-
Mov Cap-2 Maneuver	333	360	-	479	360	-	-	-	-	-	-	-
Stage 1	555	564	-	758	703	-	-	-	-	-	-	-
Stage 2	748	703	-	741	564	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	13.3	0	0.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1121	-	-	-	499	1320	-	-
HCM Lane V/C Ratio	-	-	-	-	0.126	0.007	-	-
HCM Control Delay (s)	0	-	-	0	13.3	7.7	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	29	0	22	0	22	23	21	21	0
Future Vol, veh/h	0	0	0	29	0	22	0	22	23	21	21	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	32	0	24	0	24	25	23	23	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	118	118	23	93	93	24	23	0	0	49	0	0
Stage 1	69	69	-	24	24	-	-	-	-	-	-	-
Stage 2	49	49	-	69	69	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	858	772	1054	891	797	1052	1592	-	-	1558	-	-
Stage 1	941	837	-	994	875	-	-	-	-	-	-	-
Stage 2	964	854	-	941	837	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	829	760	1054	881	785	1052	1592	-	-	1558	-	-
Mov Cap-2 Maneuver	829	760	-	881	785	-	-	-	-	-	-	-
Stage 1	941	824	-	994	875	-	-	-	-	-	-	-
Stage 2	942	854	-	927	824	-	-	-	-	-	-	-

Approach	EB	WB	NE	SW
HCM Control Delay, s	0	8.9	0	3.7
HCM LOS	A	A		

Minor Lane/Major Mvmt	NEL	NET	NER	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SWL	SWT	SWR
Capacity (veh/h)	1592	-	-	-	-	-	881	-	1052	1558	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	0.036	-	0.023	0.015	-	-
HCM Control Delay (s)	0	-	-	0	0	0	9.2	0	8.5	7.3	-	-
HCM Lane LOS	A	-	-	A	A	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	0.1	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	101	55	0	0	86	108	86	0	70	0
Future Vol, veh/h	0	0	101	55	0	0	86	108	86	0	70	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	0	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	110	60	0	0	93	117	93	0	76	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	426	472	76	434	379	117	76	0	0	210	0	0
Stage 1	76	76	-	303	303	-	-	-	-	-	-	-
Stage 2	350	396	-	131	76	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	539	490	985	532	553	935	1523	-	-	1361	-	-
Stage 1	933	832	-	706	664	-	-	-	-	-	-	-
Stage 2	666	604	-	873	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	514	460	985	451	519	935	1523	-	-	1361	-	-
Mov Cap-2 Maneuver	514	460	-	451	519	-	-	-	-	-	-	-
Stage 1	876	832	-	663	623	-	-	-	-	-	-	-
Stage 2	625	567	-	776	832	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	14.2	2.3	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1523	-	-	-	-	985	451	-	-	1361	-	-
HCM Lane V/C Ratio	0.061	-	-	-	-	0.111	0.133	-	-	-	-	-
HCM Control Delay (s)	7.5	-	-	0	0	9.1	14.2	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	B	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.4	0.5	-	-	0	-	-

Intersection	
Int Delay, s/veh	9.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	54	75	0	15	65	634	90	18	527	0
Future Vol, veh/h	0	0	54	75	0	15	65	634	90	18	527	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	0	0	-	0	100	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	59	82	0	16	71	689	98	20	573	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1501	1542	573	1474	1444	689	573	0	0	787	0	0
Stage 1	613	613	-	831	831	-	-	-	-	-	-	-
Stage 2	888	929	-	643	613	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	100	115	519	105	132	446	1000	-	-	832	-	-
Stage 1	480	483	-	364	384	-	-	-	-	-	-	-
Stage 2	338	346	-	462	483	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	90	104	519	87	120	446	1000	-	-	832	-	-
Mov Cap-2 Maneuver	90	104	-	87	120	-	-	-	-	-	-	-
Stage 1	446	471	-	338	357	-	-	-	-	-	-	-
Stage 2	303	321	-	400	471	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	139.8	0.7	0.3
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1000	-	-	-	-	519	87	-	446	832	-	-
HCM Lane V/C Ratio	0.071	-	-	-	-	0.113	0.937	-	0.037	0.024	-	-
HCM Control Delay (s)	8.9	-	-	0	0	12.8	165.1	0	13.4	9.4	-	-
HCM Lane LOS	A	-	-	A	A	B	F	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.4	5.2	-	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	18	138	120	15	0	127	342	180	0	287	0
Future Vol, veh/h	0	18	138	120	15	0	127	342	180	0	287	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	100	-	100	100	-	0	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	20	150	130	16	0	138	372	196	0	312	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1066	1156	312	1045	960	372	312	0	0	568	0	0
Stage 1	312	312	-	648	648	-	-	-	-	-	-	-
Stage 2	754	844	-	397	312	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	200	197	728	207	257	674	1248	-	-	1004	-	-
Stage 1	699	658	-	459	466	-	-	-	-	-	-	-
Stage 2	401	379	-	629	658	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	173	175	728	138	228	674	1248	-	-	1004	-	-
Mov Cap-2 Maneuver	173	175	-	138	228	-	-	-	-	-	-	-
Stage 1	621	658	-	408	414	-	-	-	-	-	-	-
Stage 2	343	337	-	485	658	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.2	113.4	1.6	0
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1248	-	-	-	175	728	138	228	-	1004	-	-
HCM Lane V/C Ratio	0.111	-	-	-	0.112	0.206	0.945	0.072	-	-	-	-
HCM Control Delay (s)	8.2	-	-	0	28.1	11.2	124.8	22	0	0	-	-
HCM Lane LOS	A	-	-	A	D	B	F	C	A	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-	0.4	0.8	6.5	0.2	-	0	-	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	23	64	22	29	80
Future Vol, veh/h	21	23	64	22	29	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	25	70	24	32	87

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	48	0	200	36
Stage 1	-	-	-	-	36	-
Stage 2	-	-	-	-	164	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1559	-	789	1037
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	865	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1559	-	753	1037
Mov Cap-2 Maneuver	-	-	-	-	753	-
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	825	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.5	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	942	-	-	1559	-
HCM Lane V/C Ratio	0.126	-	-	0.045	-
HCM Control Delay (s)	9.4	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

SIGNAL WARRANTS

2026 SIGNAL WARRANTS

Signal Warrants Report For Intersection 8: Highland Blvd & 11800 North

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	463	618	237	96
2	449	599	230	93
3	440	587	225	91
4	412	550	211	85
5	366	488	187	76
6	361	482	185	75
7	357	476	182	74
8	324	433	166	67
9	319	426	164	66
10	315	420	161	65
11	273	365	140	57
12	255	340	130	53
13	250	334	128	52
14	185	247	95	38
15	185	247	95	38
16	130	173	66	27
17	74	99	38	15
18	74	99	38	15
19	42	56	21	9
20	23	31	12	5
21	14	19	7	3
22	5	6	2	1
23	5	6	2	1
24	5	6	2	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	1081	1	237	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
2	2	1048	1	230	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
3	2	1027	1	225	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
4	2	962	1	211	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
5	2	854	1	187	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
6	2	843	1	185	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
7	2	833	1	182	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
8	2	757	1	166	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
9	2	745	1	164	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
10	2	735	1	161	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
11	2	638	1	140	No	Yes	Yes	Yes	No	No	Yes	Yes	No	No
12	2	595	1	130	No	Yes	Yes	Yes	No	No	No	Yes	No	No
13	2	584	1	128	No	Yes	Yes	Yes	No	No	No	Yes	No	No
14	2	432	1	95	No	No	No	Yes	No	No	No	No	No	No
15	2	432	1	95	No	No	No	Yes	No	No	No	No	No	No
16	2	303	1	66	No	No	No	No	No	No	No	No	No	No
17	2	173	1	38	No	No	No	No	No	No	No	No	No	No
18	2	173	1	38	No	No	No	No	No	No	No	No	No	No
19	2	98	1	21	No	No	No	No	No	No	No	No	No	No
20	2	54	1	12	No	No	No	No	No	No	No	No	No	No
21	2	33	1	7	No	No	No	No	No	No	No	No	No	No
22	2	11	1	2	No	No	No	No	No	No	No	No	No	No
23	2	11	1	2	No	No	No	No	No	No	No	No	No	No
24	2	11	1	2	No	No	No	No	No	No	No	No	No	No
Hours Met					10	13	13	15	4	10	11	13	4	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	295.1	13
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	19:25	0:20
Delay Condition Met	Yes	No
Volume on Minor Street Approach During Same Hour	237	96
High Minor Volume Condition Met	Yes	No
Total Entering Volume on All Approaches During Same Hour	1414	1414
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	Yes	No
Warrant Met for Intersection	**Yes**	

2050 SIGNAL WARRANT

Signal Warrants Report For Intersection 8: Highland Blvd & 11800 North

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	Yes
#2	Four Hour Vehicular Volume	Yes
#3	Peak Hour	Yes

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	817	679	338	0
2	792	659	328	0
3	776	645	321	0
4	727	604	301	0
5	645	536	267	0
6	637	530	264	0
7	629	523	260	0
8	572	475	237	0
9	564	469	233	0
10	556	462	230	0
11	482	401	199	0
12	449	373	186	0
13	441	367	183	0
14	327	272	135	0
15	327	272	135	0
16	229	190	95	0
17	131	109	54	0
18	131	109	54	0
19	74	61	30	0
20	41	34	17	0
21	25	20	10	0
22	8	7	3	0
23	8	7	3	0
24	8	7	3	0

Warrant Analysis by Hour

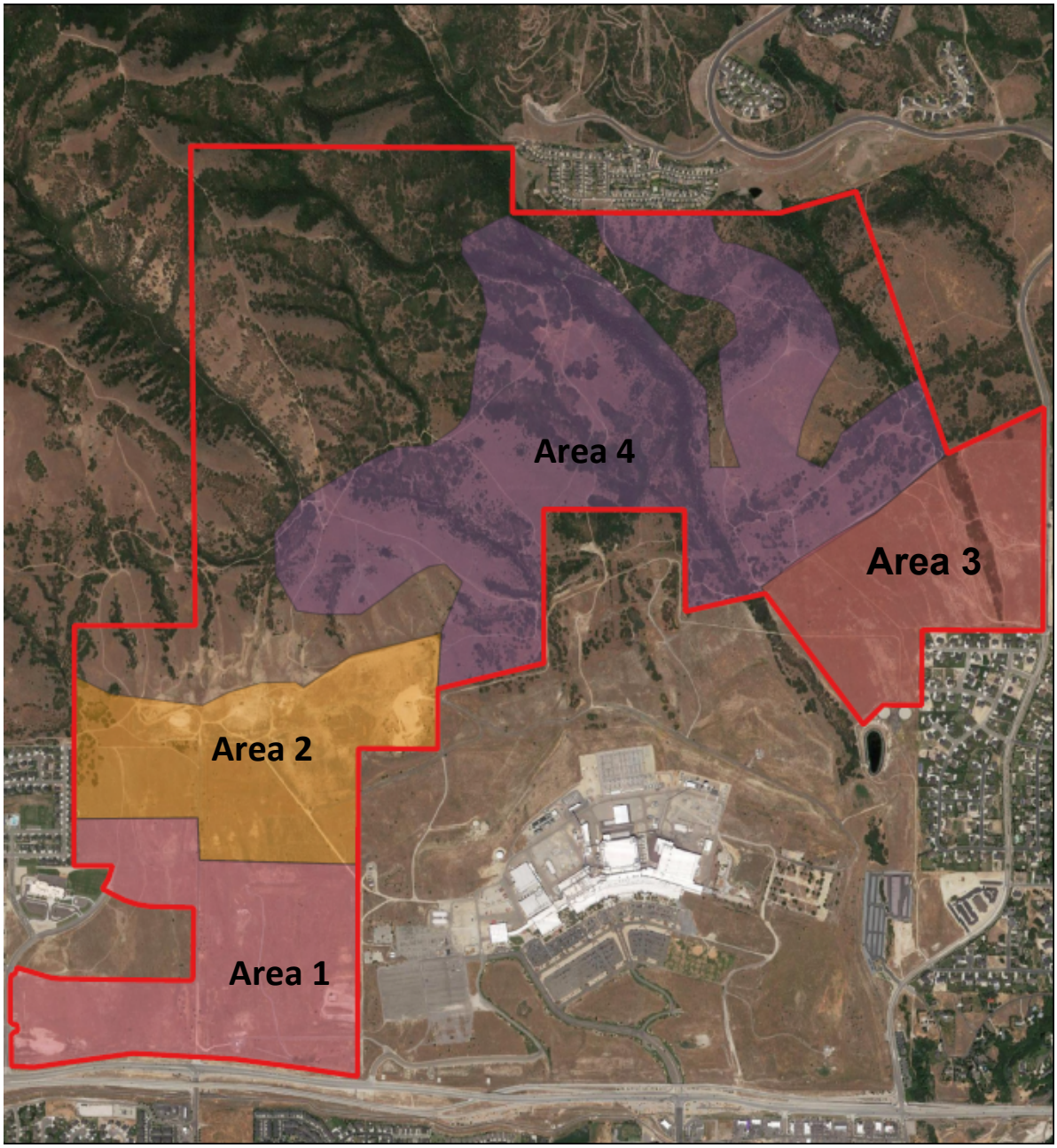
Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	1496	1	338	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	2	1451	1	328	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	2	1421	1	321	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	2	1331	1	301	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	2	1181	1	267	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	2	1167	1	264	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	2	1152	1	260	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	2	1047	1	237	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
9	2	1033	1	233	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
10	2	1018	1	230	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
11	2	883	1	199	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
12	2	822	1	186	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
13	2	808	1	183	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
14	2	599	1	135	No	Yes	Yes	Yes	No	No	No	Yes	No	No
15	2	599	1	135	No	Yes	Yes	Yes	No	No	No	Yes	No	No
16	2	419	1	95	No	No	No	Yes	No	No	No	No	No	No
17	2	240	1	54	No	No	No	No	No	No	No	No	No	No
18	2	240	1	54	No	No	No	No	No	No	No	No	No	No
19	2	135	1	30	No	No	No	No	No	No	No	No	No	No
20	2	75	1	17	No	No	No	No	No	No	No	No	No	No
21	2	45	1	10	No	No	No	No	No	No	No	No	No	No
22	2	15	1	3	No	No	No	No	No	No	No	No	No	No
23	2	15	1	3	No	No	No	No	No	No	No	No	No	No
24	2	15	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					13	15	15	16	10	13	13	15	11	7

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	1280	56.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach ([h]h:mm)	120:10	0:00
Delay Condition Met	Yes	No
Volume on Minor Street Approach During Same Hour	338	0
High Minor Volume Condition Met	Yes	No
Total Entering Volume on All Approaches During Same Hour	1834	1834
Number of Approaches on Intersection	4	4
Total Volume Condition Met	Yes	Yes
Warrant Met for Approach	Yes	No
Warrant Met for Intersection	**Yes**	

Section 5 – Geotechnical Study

- Geotechnical Report (Area 1) High Density Single Family, Commercial and Apartment Section
- Geotechnical Report (Area 2) Lehi Emerald and Single Family
- Geotechnical Report (Area 3) Highland Emerald and Single Family



GeoStrata

Geotechnical Investigation

Micron Property – High Density Single Family, Commercial and Apartment Section

Approximately 500 West and State Road 92
Lehi, Utah

January 21, 2021

Prepared For:

D.R. Horton
Attention: Scott Bishop and Dan Mitchell
12351 South Gateway Park Place
Draper, Utah 84020

GeoStrata Job No. 589-100

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Preliminary Geotechnical Investigation
Micron Property – High Density and Commercial Property 157-Acre Portion
Approximately 500 West and State Road 92
Lehi, Utah

GeoStrata Job No. 589-100

PROFESSIONAL ENGINEER
1/21/2021
#10183430-2202
CALEB RICHARD ALLRED
STATE OF UTAH

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January 21, 2021

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1.0 EXECUTIVE SUMMARY

This report presents the preliminary findings of a geotechnical investigation conducted for 157-acres of the Micron Property at approximately 500 West and State Road 92, in Lehi and Draper, of Utah County. We understand that this section of the proposed development consists of high density residential and commercial development. The development will include different structures, consisting of townhouses, duplexes, apartments and office buildings. The development for this section will be constructed across 157 acres. We anticipate footing loads on the order of 3 to 5 kips per lineal foot and column loads of up to 70 kips. The purposes of this investigation were to assess the nature and engineering properties of the subsurface soils at the site and to provide recommendations for general site grading and the design and construction of foundations, slabs-on-grade, and exterior concrete flatwork. All recommendations and conclusions presented in this report are preliminary, due to the preliminary site development plan.

Based on the subsurface conditions encountered at the site, it is our opinion that the subject site is suitable for the proposed development provided that the recommendations contained in this report are incorporated into the design and construction of the project.

As a part of this investigation, subsurface soil conditions were explored by advancing 34 exploratory test pits depths ranging from 6 to 12 feet below the existing site grade. Based on the results of our field observations as well as on our review of applicable surficial geologic maps, the site is overlain partially by approximately ½ to 2 feet of topsoil covered a majority of the site. Underlying the topsoil or fill, we encountered deposits mapped by Biek (2005) as consisting of Historical to Pleistocene-aged material deposits. Groundwater was not encountered in any of the completed test pits for this section.

Due to the presence of dense granular soils (sands and gravels) and fine-grained soils with low potential for collapsible soil present at the proposed buildings elevations (between 2 to 8 feet below the existing ground surface), strip and spread footings can be placed entirely on non-collapsible undisturbed native soils. If soil at the foundation elevation appears to have a hydro-collapsible nature (pinholes, low natural density, etc.), collapse testing in the laboratory should be performed on a lot-by-lot basis to confirm the that potential collapse will not adversely affect the proposed construction. Foundation elements should not be founded on collapsible soils, and if these soils are encountered, they should be over-excavated according to the results of lot-specific laboratory collapse testing. According to our preliminary soil collapse testing, structural fill depth below footings will be 0 to 24 inches. The site may then be brought back up to design grade using properly placed and compacted structural fill. Strip and spread footings should be a minimum of 20 and 30 inches wide, respectively. Exterior shallow footings and spread footings should be embedded at least 30 inches below final grade for frost protection and confinement. Interior strip shallow footings not susceptible to frost conditions should be embedded at least 18 inches for confinement. Conventional strip and spread footings founded on a native granular soil or on structural fill may be proportioned for a maximum net allowable bearing capacity of **1,900 pounds per square foot (psf)**.

Additional recommendations concerning other aspects of the proposed construction may be found in the body of this report.

IMPORTANT INFORMATION ABOUT THIS GEOTECHNICAL-ENGIEERING REPORT:

Do not rely on the executive summary. The executive summary omits a number of details, any one of which could be crucial. Read and refer to the report in full. Do not rely on this report if this report was prepared for a different client, different project, different purpose, different site, and/or before important events occurred at the site or adjacent to it. All recommendations in this report are confirmation dependent. A two-page document prepared by GBA explains these items with greater detail and can be found in Appendix D (Plates D-1 and D-2).

2.0 INTRODUCTION

2.1 PURPOSE AND SCOPE OF WORK

This report presents the results of a preliminary geotechnical investigation conducted for 157-acres of the Micron Property located at approximately 500 West and State Road 92 in Lehi and Draper, in Utah County, Utah. The purposes of this investigation were to assess the nature and engineering properties of the subsurface soils at the site and to provide recommendations for general site grading and the design and construction of foundations, slabs-on-grade, and exterior concrete flatwork.

The scope of work completed for this study included a site reconnaissance, subsurface exploration, soil sampling, laboratory testing, engineering analyses, and preparation of this report. Our services were performed in accordance with our proposal and signed authorization, dated November 18, 2020.

The recommendations contained in this report are subject to the limitations presented in the LIMITATIONS section of this report (Section 7.1).

2.2 PROJECT DESCRIPTION

Due to the size of the Micron Property project, we have divided the property into smaller sections for the purposes of our investigation. This preliminary geotechnical investigation is completed for High Density Single Family, Commercial and Apartments Section, which represents the southwestern-most 157-acres of the proposed building portions of the development. The property is located at approximately 500 West and State Road 92, in Lehi and Draper, Utah County, Utah (see Plate A-1, *Site Vicinity Map*). Plate A-2, Site Section Map, shows how we have divided up the buildable portions of the Micron property. This 157-acres portion of the Micron Property will be developed with high density residences and commercial office buildings. The resulting construction will include one- to three-story, wood-framed residences founded on conventional spread and strip footings and one- to two-story office buildings or apartment structures founded on conventional spread and strip footings. If larger structures are planned, then GeoStrata should be consulted and our recommendations should be updated if necessary. Each of these types of structures are anticipated to have basements or crawlspaces if feasible. We anticipate footing loads on the order of 3 to 5 kips per lineal foot and column loads of up to 70 kips. As stated before, if the anticipated footing loads exceed assumptions or the proposed construction is different than what we have assumed, please contact

GeoStrata with the updated information. The additional information may warrant additional soil subsurface investigations and engineering analysis. Our investigation for the development will be used to provide geotechnical design parameters for construction of buildings, parking areas, driveways, and associated landscaping and utilities.

3.0 METHOD OF STUDY

3.1 FIELD INVESTIGATION

As a part of this investigation, subsurface soil conditions were explored by advancing 34 exploratory test pits depths ranging from 6 to 12 feet below the existing site grade. The approximate locations of the explorations are shown on Plate A-3*, High Density Single Family, Commercial and Apartments Section Exploration Map,* in Appendix A. Exploration points were placed to provide optimum coverage of the site in the areas of the proposed residential or commercial development. Logs of the subsurface conditions, as encountered in the test pit explorations, were recorded at the time of excavation and advancement by a staff engineer currently employed at GeoStrata and are presented on Plates B-1 to B-34 in Appendix B. A *Soil Symbols and Description Key* used in the test pit logs is included as Plate B-35.

The test pits were excavated with a mini track mounted excavator. Both bulk and relatively undisturbed soil samples were obtained from the test pits. Relatively undisturbed soil samples were obtained from the test pit in the form of tube samples and block samples. All samples were transported to our laboratory for testing to evaluate engineering properties of the various earth materials observed. The soils were classified according to the *Unified Soil Classification System* (USCS) by the Geotechnical Engineer. Classifications for the individual soil units are shown on the attached Test Pit Logs, Plates B-1 to B-34 in Appendix B.

3.2 LABORATORY INVESTIGATION

Geotechnical laboratory tests were conducted on selected relatively undisturbed and bulk soil samples obtained during our field investigation. The laboratory testing program was designed to evaluate the engineering characteristics of onsite earth materials. Laboratory tests conducted during this investigation include:

- Grain Size Distribution Analysis (ASTM D422)
- Atterberg Limits (ASTM D4318)
- 1-D Collapse Consolidation Test (ASTM D2435)
- California Bearing Ratio Test (ASTM D1883)

The results of laboratory tests are presented on the Test Pit Logs in Appendix B (Plates B-1 to B-34), the test result plates presented in Appendix C (Plates C-2 to C-23) and in the *Summary of Laboratory Test Results* Table (Plate C-1).

3.3 ENGINEERING ANALYSIS

Engineering analyses were performed using soil data obtained from the laboratory test results and empirical correlations from material density, depositional characteristics and classification. Appropriate factors of safety were applied to the results consistent with industry standards and the accepted standard of care.

4.0 GENERALIZED SITE CONDITIONS

4.1 SURFACE CONDITIONS

At the time of our subsurface investigation in this 157-acre portion of the Micron Property, one structure existed on the site. This portion of the subject property was also occupied by storage ponds for the uphill drainages, and a well house. These ponds consisted of depressions excavated into the native grade and then earthen embankments surrounding the depressions. The only other site improvements consisted of utilities, gravel improved roadways, and fences constructed across the site. The site slopes towards the south (towards Utah Lake), having a maximum topographic relief of approximately 180 feet. The residential development known as Canyon View borders this property to the northwest and two schools border this property on the west, the southern border of this property is State Road 92. The remainder of property surrounding the 157-acre portion of the Micron Property is undeveloped land.

4.2 SUBSURFACE CONDITIONS

As previously mentioned, the subsurface soil conditions were explored at the subject property by advancing 34 exploratory test pits to depths ranging from 6 to 12 feet below the existing site grade (Test Pits MW-TP-17 to MW-TP-19, MW-TP-24 to MW-TP-54). Subsurface soil conditions were logged using the United Soils Classification System (USCS) at the time of the investigation and are included on the Test Pit Logs in Appendix B (Plates B-1 through B-34). The soil and moisture conditions encountered during our investigation are discussed below.

4.2.1 Soils

Based on the results of our field observations as well as on our review of applicable surficial geologic maps, the site is overlain partially by approximately ½ to 2 feet of topsoil. Underlying the topsoil or fill, we encountered deposits mapped by Biek (2005) as consisting of Historical to Pleistocene-aged material deposits. Descriptions of the soil units shown in the area are described below;

Qlsb - Lacustrine sand and silt (Upper Pleistocene) − Fine- to coarse-grained lacustrine sand and silt with minor gravel. These deposits are typically thick bedded and well sorted. This geologic soil unit was encountered in MW-TP-17, 18, 19, 24, 25, 26, 27, 28, 31, 32, 35, 36, 39, 40, 41, 42, 43, 47, 48, 49, 50, and 51. The soils were generally visually classified as a fine-grained Lean CLAY (CL) or Sandy SILT (ML), or a coarse-grained Silty SAND (SM) to Silty GRAVEL (GM) with varying amounts of silt, sand, and gravel. Some of the block samples obtained from the test pits contain pinhole texture and could be moisture sensitive. We are in the process of

completing laboratory test to assess this collapse hazard in order to provide recommendations for remediation.

Qafy - Younger undifferentiated alluvial-fan deposits (Holocene to Upper Pleistocene) − Poorly to moderately sorted, non-stratified, clay- to boulder-size sediment deposited principally by debris flows at the mouths of active drainages, are locally deeply incised; thickness unknown, but likely up to several tens of feet. This geologic soil unit was encountered in MW-TP-29, 30, 33, 34, 37, 38, 44, 45, 46, 52, 53, and 54. The soils were generally visually classified as a fine-grained Lean CLAY (CL) or Sandy SILT (ML), or a coarse-grained Silty SAND (SM) to Silty GRAVEL (GM) with varying amounts of silt, sand, and gravel.

Qf - Artificial fill (Historical) − Engineered fill larger areas of fill used to create new level building areas. Not encountered in our test pits advanced in this section but mapped as existing in this in this section.

Qaf_1 - Modern alluvial-fan deposits (Holocene) − Poorly to moderately sorted, non-stratified, clay- to boulder-size sediment deposited principally by debris flows at the mouths of active drainages. The closest test pit to this unit is MW-TP-17, and the near surface soil may contain some of the silty soil associated with this unit.

The stratification lines shown on the enclosed test pit represent the approximate boundary between soil types USCS classifications of the soils (Plates B-1 to B-34). The actual in-situ transition may be gradual. Due to the nature and depositional characteristics of the native soils, care should be taken in interpolating subsurface conditions between and beyond the exploration locations.

4.2.2 Groundwater

Groundwater was not encountered in any of the 34 test pits completed for this portion of the Micron Property. Seasonal fluctuations in precipitation, surface runoff from adjacent properties, or other on or offsite sources may increase moisture conditions. The observed groundwater conditions can change seasonally depending on the time of year and will impact the proposed construction. It is recommended that lowest floor slab elevation for each structure should be maintained a minimum of 3 feet above any observed groundwater conditions.

4.2.3 Collapsible Soils

Collapse (often referred to as "hydro-collapse") is a phenomena whereby undisturbed soils exhibit volumetric strain and consolidation upon wetting under increased loading conditions. Collapsible soils can cause differential settling of structures and roadways. Collapsible soils do not necessarily preclude development and can be mitigated by over-excavating porous, potentially collapsible soils and replacing with engineered fill and by controlling surface drainage and runoff. For some structures that are particularly sensitive to differential settlement, or in areas where collapsible soils are identified at great depth, a deep foundation system should be considered.

Soils that have a potential to collapse under increased loading and moisture conditions are typically characterized by a pinhole structure and relatively low unit weights. In general, potentially collapsible soils are observed in fine-grained soils that include clay and silt, although collapsible soils may include sandy soils. Test results of the collapse test show negligible to low collapse potential. A table of the collapse test results, depth, and test pit number are provided below. This information is also contained in Plate C-8 to C-21.

Test Pit Number	Sample Depth	Collapse Potential
MW-TP-18	3.0	0.07
MW-TP-19	6.0	1.40
MW-TP-28	3.5	0.47
MW-TP-30	4.0	0.40
MW-TP-32	3.5	0.01
MW-TP-33	6.0	0.10
MW-TP-35	5.0	0.12
MW-TP-39	3.5	0.21
MW-TP-41	5.0	0.01
MW-TP-43	8.0	3.55
MW-TP-47	6.0	0.65
MW-TP-49	6.0	-0.29
MW-TP-52	4.0	-0.01
MW-TP-54	8.0	0.53

Based on these lab test results, it is anticipated that between 0 to 24 inches of structural fill may be required under some of the structures that extend into fine-grained soils with a pinhole

texture. With the 0 to 24 inches of structural fill under the footings the collapsible soils are not anticipated to present a significant risk to the foundation elements within the proposed development if the recommendations presented in this report are incorporated into the design and construction of the structures.

5.0 GEOLOGIC CONDITIONS

5.1 GEOLOGIC SETTING

The site is located at an elevation between 4,830 and 5,050 feet above mean sea level within the northern portion of Utah Valley. The Utah Valley is a deep, sediment-filled structural basin of Cenozoic age flanked by the Wasatch Range to the east and the Lake Mountains, East Tintic Mountains, and the West Hills to the West (Hintze, 1980). The Wasatch Range is the easternmost expression of pronounced Basin and Range extension in north-central Utah.

The near-surface geology of Utah Valley is dominated by sediments deposited within the last 30,000 years by Lake Bonneville (Scott and others, 1983). As the lake receded, streams began to incise large deltas formed at the mouths of major canyons along the Wasatch Range, and the eroded material was deposited in shallow lakes and marshes in the basin and in a series of recessional deltas and alluvial fans. Sediments toward the center of the valleys are predominately deep-water deposits of clay, silt and fine sand. However, these deep-water deposits are in places covered by a thin post-Bonneville alluvial cover. Surface soil units as mapped by Biek (2005) as consisted of Historical to Pleistocene-aged material deposits. Based on the soil and groundwater conditions encountered during our investigation, it is considered likely that each of our test pits were terminated in the mapped deposit.

5.2 FAULTING AND SEISMICITY

The site lies within the north-south trending belt of seismicity known as the Intermountain Seismic Belt (ISB) (Hecker, 1993). The ISB extends from northwestern Montana through southwestern Utah. An active fault is defined as a fault that has had activity within the Holocene (<11ka). Based on information provided by Geologic Hazards on the Utah Geologic Hazard Portal, faults associated with the Wasatch Fault Zone (WFZ) are present to the north and east of the subject property (see Plate A-5, *Fault and Fault Special Study Area Map*). No active faults or special study area are mapped through or immediately adjacent to the site (Black and others, 2003, and Constenius, et al., 2011). The closes fault according to Utah Geologic Hazard Portal is 1200 feet northeast of the site. The 157-acre portion of Micron Property is located approximately 5 miles east of the northern strand of the Provo section of the Wasatch Fault Zone. The Provo section is one of the longest sections of the Wasatch Fault Zone (Hecker, 1993) and is estimated to be approximately 43 miles long with a reported rupture length of 37 miles and a maximum potential to produce earthquakes up to magnitude (M_s) 7.5 to 7.7 (Black and others, 2003). The 157-acre portion of Micron Property is also located approximately 6 miles north of the mapped

Utah Lake Faults and Folds (ULFF). The ULFF consists of several northeast to northwest trending faults and folds located beneath Utah Lake and are reported to have been active in the past 15 ka (Black et al, 2003). However, since the ULFF is at the bottom of a large lake these faults are poorly understood – as such, the USGS does not include ULFF in their fault database for seismic hazard analysis. Analysis of the ground shaking hazard along the Wasatch Front suggests that the Wasatch Fault Zone is the single greatest contributor to the seismic hazard in the Salt Lake City region. Each of the faults listed above show evidence of Holocene-aged movement and is therefore considered active.

Spectral responses for the Risk-Targeted Maximum Considered Earthquake (MCE_R) are shown in the table below. These values generally correspond to a one percent probability of structure collapse in 50 years for a "firm rock" site. To account for site effects, site coefficients which vary with the magnitude of spectral acceleration are used. Based on our field exploration to 12 feet and our geologic review of the site, it is our opinion that this location is best described as a Site Class C. The spectral accelerations are calculated based on the site's approximate latitude and longitude of 40.434° and -111.851˚ respectively and the Seismic Design Maps web-based application at https://seismicmaps.org/.

Description	Value
Site Class	C
S_s - MCE_R ground motion (period – 0.2s)	1.327
S_1 - MCE_R ground motion (period – 1.0s)	0.485
F_a - Site amplification factor at 1.0s	1.200
F_v - Site amplification factor at 1.0s	1.500
PGA - MCE_G peak ground acceleration	0.596
PGA_M – Site modified peak ground acceleration	0.715

It should be noted that our investigation did not include a site-specific ground motion hazard analysis and a Site Class C has been used to determine the seismic parameters presented above based on maximum depths explored of 12 feet and our geologic review. The seismic parameters presented herein may be used for design of the proposed structures provided that structural design allows for the ground motion hazard analysis exception in ASCE 7-16 Section 11.4.8. Alternatively, GeoStrata may be contacted to complete a ground motion hazard analysis in accordance with ASCE 7-16 Chapter 21.

5.3 LIQUEFACTION

Certain areas within the intermountain region possess a potential for liquefaction during seismic events. Liquefaction is a phenomenon whereby loose, saturated, granular soil deposits lose a significant portion of their shear strength due to excess pore water pressure buildup resulting from dynamic loading, such as that caused by an earthquake. Among other effects, liquefaction can result in densification of such deposits causing settlements of overlying layers after an earthquake as excess pore water pressures are dissipated. The primary factors affecting liquefaction potential of a soil deposit are: (1) level and duration of seismic ground motions; (2) soil type and consistency; and (3) depth to groundwater.

Based on our review of the *Liquefaction-Special Study Areas, Wastach Front and nearby Area, Utah*, this portion of the Micron Property is located in an area currently designated as having a "Very Low to Low" liquefaction potential. "Low" liquefaction potential indicates that there is between a 5% to 10% probability of having an earthquake within a 100-year period that will be strong enough to cause liquefaction. "Very Low" liquefaction potential indicates that there is less than 5% probability of having an earthquake within a 100-year period that will be strong enough to cause liquefaction.

The near-surface soils observed within our test pits consisted of unsaturated soils. Groundwater was not observed in the test pits. A liquefaction analysis was beyond the scope of the project; however, if the owner or client wishes to have greater understanding of the liquefaction potential of the soils at greater depths, a liquefaction analysis should be completed at the site.

5.4 OTHER GEOLOGIC HAZARDS

According to the latest update to the Geologic Hazards on the web-based Utah Geologic Hazard Portal at https://geology.utah.gov/apps/hazards/, the 157-acre portion of Micron property is located just outside of special study areas for debris flows and slope stability. Maps of these hazards are included on Plates A-6 to A-7. Recommendations for development in these mapped hazards special study areas, should be addressed in geologic hazard report or reports. The results of these reports and findings may limit the development or require mitigation prior to the development of the site.

6.0 ENGINEERING ANALYSIS AND RECOMMENDATIONS

6.1 GENERAL CONCLUSIONS

Based on the subsurface conditions encountered at the site, it is our opinion that the subject site is suitable for the proposed construction provided that the recommendations contained in this report are complied with. This conclusion should be understood as preliminary, and the results of geologic hazard analysis could designate some portions of this development as hazardous or unbuildable.

The recommendations presented in this report are based on our understanding of the proposed project, the subsurface conditions observed during field exploration, the results of laboratory testing, and our engineering analyses. If subsurface conditions other than those described herein are encountered in conjunction with construction, and/or if design and layout changes are initiated, we must be informed so that the recommendations herein can be reviewed and revised as changes or conditions may require.

Based on our observations, the subject site is overlain by ½ to 2 feet of topsoil. Increased depth of topsoil may be encountered in the drainages or within the alluvial fan deposits. These soils would need to be over-excavated in all areas underlying footing elements, pavements and any other areas which would underlie structural elements of the new development.

As additional layers of undocumented fill soils may exist existing, particularly in the footprint of the existing roadways or batching plant. The owner and contractor should be aware that the possibility exists that thicker sections of undocumented fill than those reported in our test pits may exist.

6.2 EARTHWORK

Prior to the placement of foundations, general site grading is recommended to provide proper support for foundations, exterior concrete flatwork, concrete slabs-on-grade, and pavement sections. Site grading is also recommended to provide proper drainage and moisture control on the subject property and to aid in preventing differential movement in foundation soils as a result of variations in moisture conditions.

6.2.1 General Site Preparation and Grading

In areas beneath footings and concrete flat work, the highly organic topsoil (top 3 to 6 inches) should be stripped and stockpiled for use in landscape areas or disposal. Debris, vegetation, undocumented fill, roots, loose, soft or other deleterious materials should also be removed. If over-excavation is required, the excavation should extend a minimum of one foot laterally for every foot of depth of over-excavation. The exposed subgrade should be proof-rolled with heavy equipment to identify loose, soft or otherwise disturbed soils. If soft soils are observed, they should be stabilized in accordance with our recommendations in the Soft Soil Stabilization Section (Section 6.2.4); if loose soils are observed, they should be compacted as recommended in Section 6.2.5.

A GeoStrata representative should observe the site preparation and grading operations to assess that the recommendations presented in this report are complied with.

6.2.2 Excavation Stability

Based on Occupational Safety and Health Administration (OSHA) guidelines for excavation safety, trenches with vertical walls up to 5 feet in depth may be occupied, however, the presence of fill soils, loose soils, or wet soils may require that the walls be flattened to maintain safe working conditions. When the trench is deeper than 5 feet, we recommend a trench-shield or shoring be used as a protective system to workers in the trench. Based on our soil observations, laboratory testing, and OSHA guidelines, native soils at the site classify as Type C soils. Deeper excavations, if required, should be constructed with side slopes no steeper than one and one- and one-half horizontal to one vertical (1.5H:1V). Wet conditions should be anticipated side slopes will likely need to be further flattened to maintain slope stability. Alternatively, shoring or trench boxes may be used to improve safe work conditions in trenches. The contractor is ultimately responsible for trench and site safety. Pertinent OSHA requirements should be met to provide a safe work environment. If site specific conditions arise that require engineering analysis in accordance with OSHA regulations, GeoStrata can respond and provide recommendations as needed.

We recommend that a GeoStrata representative be on-site during all excavations to assess the exposed soils in trench walls.

6.2.3 Soft Soil Stabilization

Based on observations during our field investigation, if near-surface soils become saturated soft or pumping soils may be exposed in excavations at the site. Once exposed, all subgrade surfaces beneath proposed structure, pavements, and flat work concrete should be proof rolled with heavy wheeled-construction equipment. If soft or pumping soils are encountered, these soils should be stabilized prior to construction of footings. Stabilization of the subgrade soils can be accomplished using a clean, coarse angular material worked into the soft subgrade. We recommend the material be greater than 2-inch diameter, but less than 6 inches. A locally available pit-run gravel may be suitable but should contain a high percentage of particles larger than 2 inches and have less than 7 percent fines (material passing the No. 200 sieve). A pit-run gravel may not be as effective as a coarse, angular material in stabilizing the soft soils and may require more material and greater effort. The stabilization material should be worked (pushed) into the soft subgrade soils until a firm relatively unyielding surface is established. Once a firm, relatively unyielding surface is achieved, the area may be brought to final design grade using structural fill.

In large areas of soft subgrade soils, stabilization of the subgrade may not be practical using the method outlined above. In these areas it may be more economical to place a woven geotextile fabric against the soft soils covered by 18 inches of coarse, sub-rounded to rounded material over the woven geotextile. An inexpensive non-woven geotextile "filter" fabric should also be placed over the top of the coarse, sub-rounded to rounded fill prior to placing structural fill or pavement section soils to reduce infiltration of fines from above. The woven geotextile should be Mirafi RS280i or prior approved equivalent. The filter fabric should consist of a Mirafi 140N, or equivalent as approved by the Geotechnical Engineer.

We recommend that a GeoStrata representative be on-site to assess the exposed excavation soils and be allowed to review the excavation plans when they are prepared in order to evaluate their compatibility with these recommendations.

6.2.4 Structural Fill and Compaction

All fill placed for the support of structures, flatwork or pavements, should consist of structural fill. Onsite soils may be utilized for structural fill, although the contractor should be aware that due to the over-sized aggregates or the clayey composition of the native soils, it may be difficult if not impossible to maintain active and accurate proctor values for moisture conditioning and compaction. As such, the native soil onsite may need to be screened and well mixed prior to the

use of the native soils as structural fill for development. Onsite undocumented fill soils may likewise be used as structural fill. The contractor should have confidence that the anticipated method of compaction will be suitable for the type of structural fill used. All structural fill should be free of vegetation, debris or frozen material, and should contain no inert materials larger than **4 inches** in nominal diameter.

If an imported material will be used as structural fill, it should consist a relatively well-graded granular soil with a maximum of 50 percent passing the No. 4 sieve and a maximum fines content (minus No.200 mesh sieve) of 25 percent. Fill material potion finer than the No. 40 sieve should have a liquid limit (LL) less than 35 and a plasticity index (PI) less than 25. The table below provides our recommended gradation and Atterberg limits requirements for structural fill.

Grain Size	Percent Passing
4-inch	100
2-inch	85 to 100
No. 4	15 to 50
No. 200	< 25
Liquid Limit (LL)	<35
Plasticity Index (PI)	<25

All structural fill soils should be approved by the Geotechnical Engineer prior to placement. Earth materials not meeting the aforementioned criteria may be suitable for use as structural fill; however, such material should be evaluated on a case-by-case basis and should be approved by the Geotechnical Engineer prior to use. These requirements for structural fill meet the needs of the site; however, regulating entities including special service districts, cities etc. may require the use of a predefined structural fill for use in their utility corridors/trenches. The contractor should be aware of the special requirements of structural fill by these regulating entities.

GeoStrata observed that some of the native soils meet the requirements for A-1-a according to AASTHO soil classification system. A table of the laboratory tests and soil classification are provided below;

Sample Location	USCS Classification	AASTHO Classification	Can be used as onsite structural fill?
MW-TP-17	SM	A-2-4	Yes
MW-TP-24	GC	A-2-6	Yes
MW-TP-25	SP-SM	A-1-b	Yes
MW-TP-26	SM	A-2-4	Yes
MW-TP-29	SC	A-2-6	Yes
MW-TP-31	CL	A-6	No
MW-TP-32	CL	A-6	No
MW-TP-33	GP-GM	A-1-a	Yes
MW-TP-36	ML	A-2-4	No
MW-TP-36	ML	A-2-4	Yes
MW-TP-37	GP	A-1-a	Yes
MW-TP-39	CL	A-6	No
MW-TP-41	GC	A-6	Yes
MW-TP-42	SM	A-4	Yes
MW-TP-45	CL	A-6	No
MW-TP-46	GM	A-4	Yes
MW-TP-49	SC	A-6	Yes
MW-TP-51	CL	A-6	No
MW-TP-53	CL	A-6	No

All structural fill should be placed in maximum 10-inch loose lifts if compacted by small hand-operated compaction equipment, maximum 12-inch loose lifts if compacted by riding rollers or heavy-duty compaction equipment that is capable of efficiently compacting the entire thickness of the lift. We recommend that all structural fill be compacted on a horizontal plane, unless otherwise approved by the geotechnical engineer. Structural fill should be compacted to at least 95% of the maximum dry density, as determined by ASTM D-1557, for fill 5 feet or less in thickness. The required compaction should be increased to 98% for fills greater than 5 feet in thickness. The moisture content should be at or slightly above the optimum moisture content at the time of placement and compaction. Also, prior to placing any fill, the excavations should be observed by the geotechnical engineer to observe that any unsuitable materials or loose soils have been removed. In addition, proper grading should precede placement of fill, as described in the **General Site Preparation and Grading** subsection of this report (Section 6.2.1).

We understand that grading fills and structural fill will be placed up to 12 feet in total height. Fill soils placed for subgrade below exterior flat work and pavements, should be within 3% of the optimum moisture content when placed and compacted to at least 95% of the maximum dry density as determined by ASTM D-1557, for fills less than 6 feet in depth. Fill soils placed for subgrade below exterior flat work and pavements, should be within 3% of the optimum moisture content when placed and compacted to at least 95% of the maximum dry density as determined by ASTM D-1557, for fills more than 6 feet and less than 12 feet in depth. Contact Geostrata for recommendations for fill placement exceed 12 feet in depth. All utility trenches backfilled below the proposed structure, pavements, and flatwork concrete, should be backfilled with onsite soils or structural fill that is within 3% of the optimum moisture content when placed and compacted to at least 95% of the maximum dry density as determined by ASTM D-1557. All other trenches, in landscape areas, should be backfilled and compacted to at least 90% of the maximum dry density (ASTM D-1557).

The gradation, placement, moisture, and compaction recommendations contained in this section meet our minimum requirements but may not meet the requirements of other governing agencies such as city, county, or state entities. If their requirements exceed our recommendations, their specifications should override those presented in this report.

6.3 FOUNDATIONS

The foundations for the proposed structures may consist of conventional strip and/or spread footings. Strip and spread footings should be a minimum of 20 and 30 inches wide, respectively, and exterior shallow footings should be embedded at least 30 inches below final grade for frost protection and confinement. Interior shallow footings not susceptible to frost conditions should be embedded at least 18 inches for confinement.

6.3.1 Installation and Bearing Material

Due to the presence of dense granular soils (sands and gravels) and fine-grained soils with low potential for collapsible soil present at the proposed buildings elevations (between 2 to 8 feet below the existing ground surface), strip and spread footings can be placed entirely on non-collapsible undisturbed native soils. If soil at the foundation elevation appears to have a hydro-collapsible nature (pinholes, low natural density, etc.), collapse testing in the laboratory should be performed on a lot-by-lot basis to confirm the that potential collapse will not adversely affect the proposed construction. Foundation elements should not be founded on collapsible soils, and if these soils are encountered, they should be over-excavated according to the results of lot-

specific laboratory collapse testing. According to our preliminary soil collapse testing, structural fill depth below footings will be 0 to 24 inches. The site may then be brought back up to design grade using properly placed and compacted structural fill. Structural fill should meet material recommendations and be placed and compacted as recommended in Section 6.2.4 of this report.

Foundation elements should not be founded on undocumented fill, and if these soils are encountered, they should be over-excavated until suitable, native soils are exposed. Foundation elements should not be founded on combination soils, and if these soils condition are encountered, they should be over-excavated a minimum of 1-foot. The site may then be brought back up to design grade using properly placed and compacted structural fill. Structural fill should meet material recommendations and be placed and compacted as recommended in Section 6.2.5 of this report.

All organic material, soft areas, frozen material or other inappropriate material shall be removed from the footing zone to a depth determined by the Geotechnical Engineer and be replaced with structural fill where over excavation is required.

6.3.2 Bearing Pressure

Conventional strip and spread footings founded on a native soil or on structural fill may be proportioned for a maximum net allowable bearing capacity of **1,900 pounds per square foot (psf).** The recommended net allowable bearing pressure refers to the total dead load and can be increased by ⅓ to include the sum of all loads including wind and seismic.

6.3.3 Settlement

Settlements of properly designed and constructed conventional footings, founded as described above, are anticipated to be less than 1 inch. Differential settlements should be on the order of half the total settlement over 30 feet.

6.3.4 Frost Depth

All exterior footings and spread footings are to be constructed at least 30 inches below the ground surface for frost protection and confinement. This includes walk-out areas and may require fill to be placed around buildings. Interior strip footings not susceptible to frost conditions should be embedded at least 18 inches for confinement. If foundations are constructed through the winter months, all soils on which footings will bear shall be protected from freezing.

6.3.5 Construction Observation

A geotechnical engineer shall periodically monitor excavations prior to installation of footings. Inspection of soil before placement of structural fill or concrete is required to detect any field conditions not encountered in the investigation which would alter the recommendations of this report. All structural fill material shall be tested under the direction of a geotechnical engineer for material and compaction requirements.

6.3.6 Foundation Drainage

As stated in Section 4.2.2 of this report, groundwater was not encountered in the test pits. IRC Section R405 *Foundation Drainage* recommends the construction of a foundation drain around any walls or portions thereof that retain earth and enclose spaces and floors below grade. Where a site is located in well-drained gravel or sand/gravel mixture soils, a dedicated drainage system is not required.

We recommend that the IRC Section R405 Foundation Drainage recommends be complied with. The foundation drain should consist of a 4-inch perforated pipe placed at or below the footing elevation. The pipe should be covered with at least 12 inches of free draining gravel (containing less than 5 percent passing the No. 4 sieve) and be graded to a free gravity outfall or to a pumped sump. A separator fabric, such as Mirafi 140N, should separate the free draining gravel and native soil (i.e. the separator fabric should be placed between the gravel and the native soils at the bottom of the gravel, the side of the gravel where the gravel does not lie against the concrete footing or foundation and at the top of the gravel). We recommend that the gravel extend up the foundation wall to within 2 feet of the final ground surface. As an alternative, the gravel extending up the foundation wall may be replaced with a prefabricated drain panel, such as Ecodrain-E. We recommend that the foundation drain construction be observed and documented in a subsequent observation letter.

As an added precaution the following moisture protection mitigation recommendation should be implemented to help reduce the risk from potential settlement from occurring. These items are summarized as follows:

- Moisture should not be allowed to infiltrate into the soils in the vicinity of the foundations. As such, design strategies to minimize ponding and infiltration near the home should be implemented.

- The ground surface within 10 feet of the entire perimeter of the building should slope a minimum of five percent away from the structure. Alternatively, a slope of 5% is acceptable if the water is conveyed to a concrete ditch that will convey the water to a point of discharge that is at least 10 feet from the structures.
- Roof runoff devices (rain gutters) should be installed to direct all runoff a minimum of 10 feet away from the structure and preferably day-lighted to the curb where it can be transferred to the storm drain system. Rain gutters discharging roof runoff adjacent to or within the near vicinity of the structure may result in excessive differential settlement.
- We recommend irrigation around foundations be minimized by selective landscaping and that irrigation valves be constructed at least 5 feet away from foundations.
- Jetting (injecting water beneath the surface) to compact backfill against foundation soils may result in excessive settlement beneath the building and is not allowed.
- Backfill against foundations walls should be placed and compacted in accordance with the Section 6.2.4.
- Any additional precautions which may become evident during construction.

6.4 CONCRETE SLAB-ON-GRADE CONSTRUCTION

Concrete slabs-on-grade should be constructed over at least 4 inches of compacted gravel. Disturbed native soils should be compacted to at least 95% of the maximum dry density as determined by ASTM D-1557 (modified proctor) prior to placement of gravel. The gravel should consist of road base or clean drain rock with a ¾-inch maximum particle size and no more than 12 percent fines passing the No. 200 mesh sieve. The gravel layer should be compacted to at least 95 percent of the maximum dry density of modified proctor or until tight and relatively unyielding if the material is non-proctorable. The maximum load on the floor slab should not exceed 100 psf; greater loads would require additional subgrade preparation and additional structural fill. All concrete slabs should be designed to minimize cracking as a result of shrinkage. Consideration should be given to reinforcing the slab with welded wire, re-bar, or fiber mesh.

6.5 EARTH PRESSURE AND LATERAL RESISTANCE

Lateral forces imposed upon conventional foundations due to wind or seismic forces may be resisted by the development of passive earth pressures and friction between the base of the footing and the supporting subgrade. In determining the frictional resistance, a coefficient of friction of 0.41 should be used for native soils against concrete or 0.43 for structural fill against concrete.

Ultimate lateral earth pressures from native soil backfill acting against retaining walls and buried structures may be computed from the lateral pressure coefficients or equivalent fluid densities presented in the following table:

Condition	Lateral Pressure Coefficient	Equivalent Fluid Density (pounds per cubic foot)
Active[1]	0.29	34
At-rest[2]	0.48	58
Passive[1]	11.62	1394
Seismic Active[3]	0.32	38
Seismic Passive[4]	-8.92	-1071

[1]Based on Coulomb's equation
[2]Based on Jaky
[3]Based on Lew et al. (2010)
[4]Based on Mononobe-Okabe Equation

These coefficients and densities assume level, granular backfill with no buildup of hydrostatic pressures. The force of the water should be added to the presented values if hydrostatic pressures are anticipated. If sloping backfill is present, we recommend the geotechnical engineer be consulted to provide more accurate lateral pressure parameters once the design geometry is established.

Walls and structures allowed to rotate slightly should use the active condition. If the element is constrained against rotation, the at-rest condition should be used. These values should be used with an appropriate factor of safety against overturning and sliding. A value of 1.5 is typically used. Additionally, if passive resistance is calculated in conjunction with frictional resistance, the passive resistance should be reduced by ½.

For seismic analyses, the *active* and *passive* earth pressure coefficient provided in the table is based on Lew et al (2010) and Mononobe-Okabe respectively and only accounts for the dynamic horizontal thrust produced by ground motion. Hence, the resulting dynamic thrust pressure should be added to the static pressure to determine the total pressure on the wall. The pressure distribution of the dynamic horizontal thrust may be closely approximated as an inverted triangle with stress decreasing with depth and the resultant acting at a distance approximately 0.6 times the loaded height of the structure, measured upward from the bottom of the structure.

The coefficients shown assume a vertical wall face. Hydrostatic and surcharge loadings, if any, should be added. Over-compaction behind walls should be avoided. Resisting passive earth pressure from soils subject to frost or heave, or otherwise above prescribed minimum depths of embedment, should usually be neglected in design.

6.6 PAVEMENT SECTION

For pavement design, the following CBR laboratory test result was obtained:

Test Pit	Depth (ft)	Soil Type	CBR (%)
MW- TP-41	1.5	GC	10.9
MW- TP-41	2.0	CL	5.3

The test results indicate a low CBR value of 5.3. No traffic information was available at the time this report was prepared; therefore, GeoStrata has assumed traffic counts for the local and private roads and parking areas. We assumed that vehicle traffic along the local and private roadways will consist of approximately 1,500 passenger car trips per day, 2 small trucks per day, and 2 large trucks per day with a 20-year design life. Based on these assumptions, our analysis uses 51,000 ESAL's for for a 20-year design life of the pavement. We assumed that vehicle traffic along the collector and arterial roads will consist of approximately 1,275,000 ESAL's for a 20-year design life (approximately 25 times greater than private roads).

Based on these assumptions, our analysis uses 51,000 and 1,275,000 ESAL's for the traffic over the life of the pavement. Asphalt has been assumed to be a high stability plant mix or Superpave mix with a minimum CBR of 70. The untreated base course material (road base or UTBC) composed of crushed stone with a minimum CBR of 30. The table below presents equivalent recommended pavement sections based on the above assumptions. The City of Lehi minimum pavement sections may govern the pavement design.

Local and Private Roadways Pavement Sections

Pavement Materials	Recommended Minimum Thickness (in)		
	Pavement 1	Pavement 2	City Minimum
Asphaltic Concrete	3	3	3
Untreated Base Course	6	10	6
Granular Borrow/ Engineered Fill	8	0	12

Collector and Arterial Pavement Sections

Pavement Materials	Recommended Minimum Thickness (in)		
	Pavement 1	Pavement 2	City Minimum
Asphaltic Concrete	5	6	6.5
Untreated Base Course	8	8	6
Granular Borrow/ Engineered Fill	15	10	12

The pavement section thicknesses above assume that there is no mixing over time between the road base and the softer native layers below. In order to prevent mixing or fines migration, and thereby prolong the life of the pavement section, we recommend that the owner give consideration to placing a non-woven filter fabric between the native soils and the road base. We recommend that a Propex Geotex® NW-401, NW-601, or a GeoStrata-approved equivalent be used.

If traffic conditions vary significantly from our stated assumptions, GeoStrata should be contacted so we can modify our pavement design parameters accordingly. Specifically, if the traffic counts are significantly higher or lower, we should be contacted to review the pavement sections as necessary. The pavement sections thicknesses above assumes that the majority of construction traffic including cement trucks, cranes, loaded haulers, etc. has ceased. If a significant volume of construction traffic occurs after the pavement section has been constructed, the owner should anticipate maintenance or a decrease in the design life of the pavement area.

In our experience, in areas with heavy truck loads where trucks frequently turn around, backup, or load and unload, such as areas around dumpsters, pavements experience more distress. To prolong the life of the pavement in these areas, consideration should be given to using a Portland cement concrete (rigid) pavement in these areas. The table below presents our recommended rigid pavement section.

Rigid Pavement Section

Pavement Materials	Recommended Minimum Thickness (in)
	Rigid Pavement 1
Concrete	5
Untreated Base Course	6

Concrete should consist of a low slump, low water cement ratio mix with a minimum 28-day compressive strength of 4,000 psi. Base course should be compacted to at least 95% of the maximum dry density as determined by the ASTM D-1557.

The pavement sections discussed above meet our minimum recommendations for pavement design. It should be noted that more stringent pavement section requirements may be enforced by Lehi City, Utah County or other governing agency.

7.0 CLOSURE

7.1 LIMITATIONS

The recommendations contained in this report are based on our limited field exploration, laboratory testing, and understanding of the proposed construction. The subsurface data used in the preparation of this report were obtained from the explorations made for this investigation. It is possible that variations in the soil and groundwater conditions could exist between and beyond the points explored. The nature and extent of variations may not be evident until construction occurs. If any conditions are encountered at this site that are different from those described in this report, GeoStrata should be immediately notified so that we may make any necessary revisions to recommendations contained in this report. In addition, if the scope of the proposed construction changes from that described in this report, GeoStrata should be notified.

This report was prepared in accordance with the generally accepted standard of practice at the time the report was written. No other warranty, expressed or implied, is made.

It is the Client's responsibility to see that all parties to the project including the Designer, Contractor, Subcontractors, etc. are made aware of this report in its entirety. The use of information contained in this report for bidding purposes should be done at the Contractor's option and risk.

7.2 ADDITIONAL SERVICES

The recommendations made in this report are based on the assumption that an adequate program of tests and observations will be made during construction. GeoStrata staff should be on site to verify compliance with these recommendations. These tests and observations should include, but not necessarily be limited to, the following:

- Observations and testing during site preparation, earthwork and structural fill placement.
- Observation of foundation soils to assess their suitability for footing placement.
- Observation of soft/loose soils over-excavation.
- Observation of temporary excavations and shoring.
- Consultation as may be required during construction.
- Quality control and observation of concrete placement.

We also recommend that project plans and specifications be reviewed by GeoStrata to verify compatibility with our conclusions and recommendations. Additional information concerning the scope and cost of these services can be obtained from our office.

We appreciate the opportunity to be of service on this project. Should you have any questions regarding the report or wish to discuss additional services, please do not hesitate to contact us at your convenience at (801) 501-0583.

7.3 ACKNOWLEDGEMENTS

This project was made possible through the help of Dan Mitchell and Scott Bishop with D.R. Horton, they scheduled meetings with the landowners and worked on permits for land disturbance and scheduled a second trackhoe to dig the east side of the property test pits at the site. Dale Judd with JSI Ventures, LLC, the operator with the excavation company that completed the test pits on the west side of the property. Bryce Jackson, E.I.T., Nate Flores, Ashley Peay, and James Moore with GeoStrata all logged test pits and collected samples at the site. Jerry Olson and Jack Berry with Micron Technology, Inc met multiple times to discuss utility location. There are others with GeoStrata, D.R. Horton, and Micron Technology Inc. that made this project happen. Thank you.

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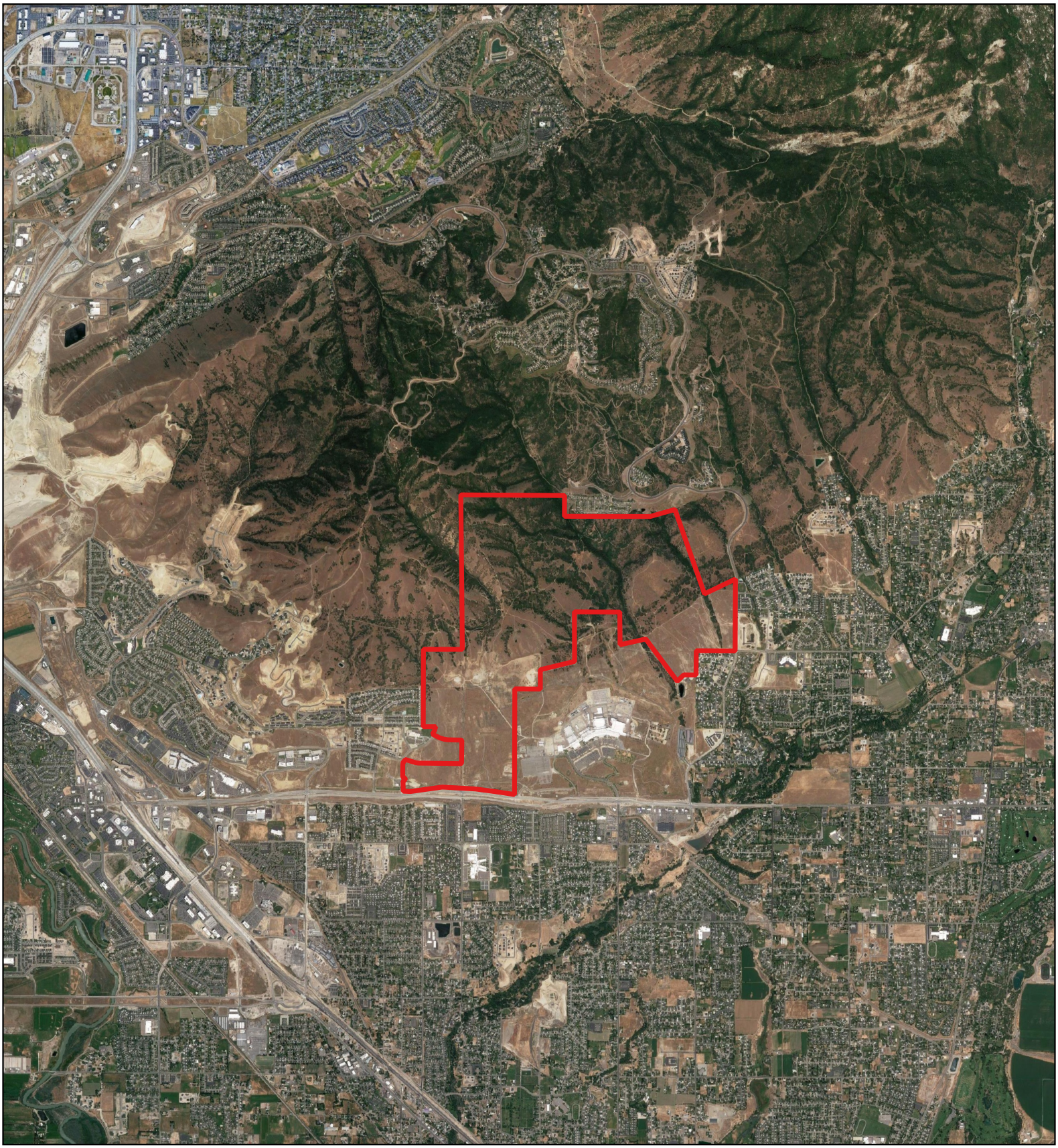
APPENDIX A



Legend

Bondaries

400 0 400 800 1200 1600 ft

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GeoStrata

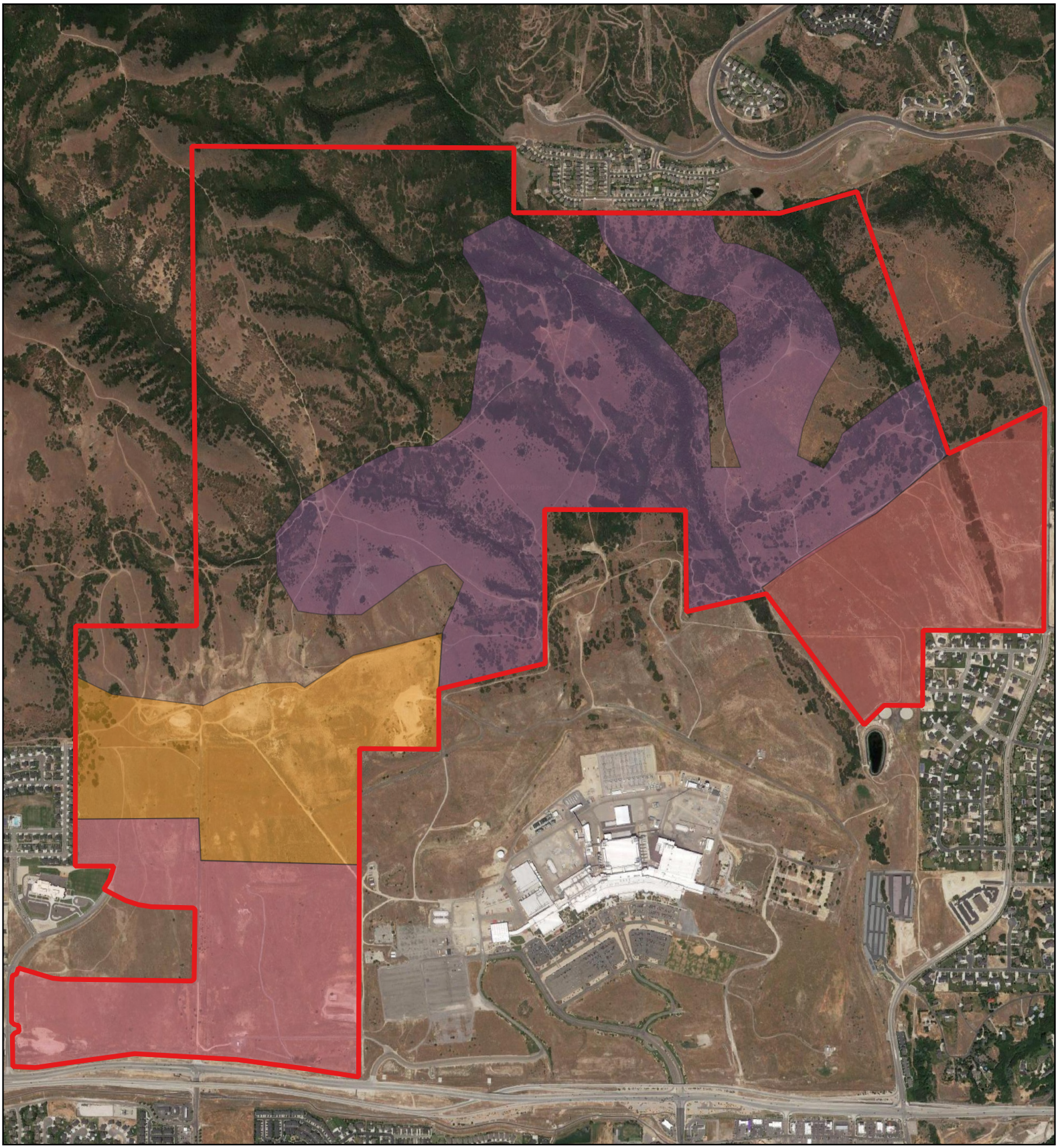
Copyright, 2020

D.R. Horton
Mircon Property
Lehi/Draper, Utah
Project Number

Site Vicinity Map

Plate A-1

1150



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Legend

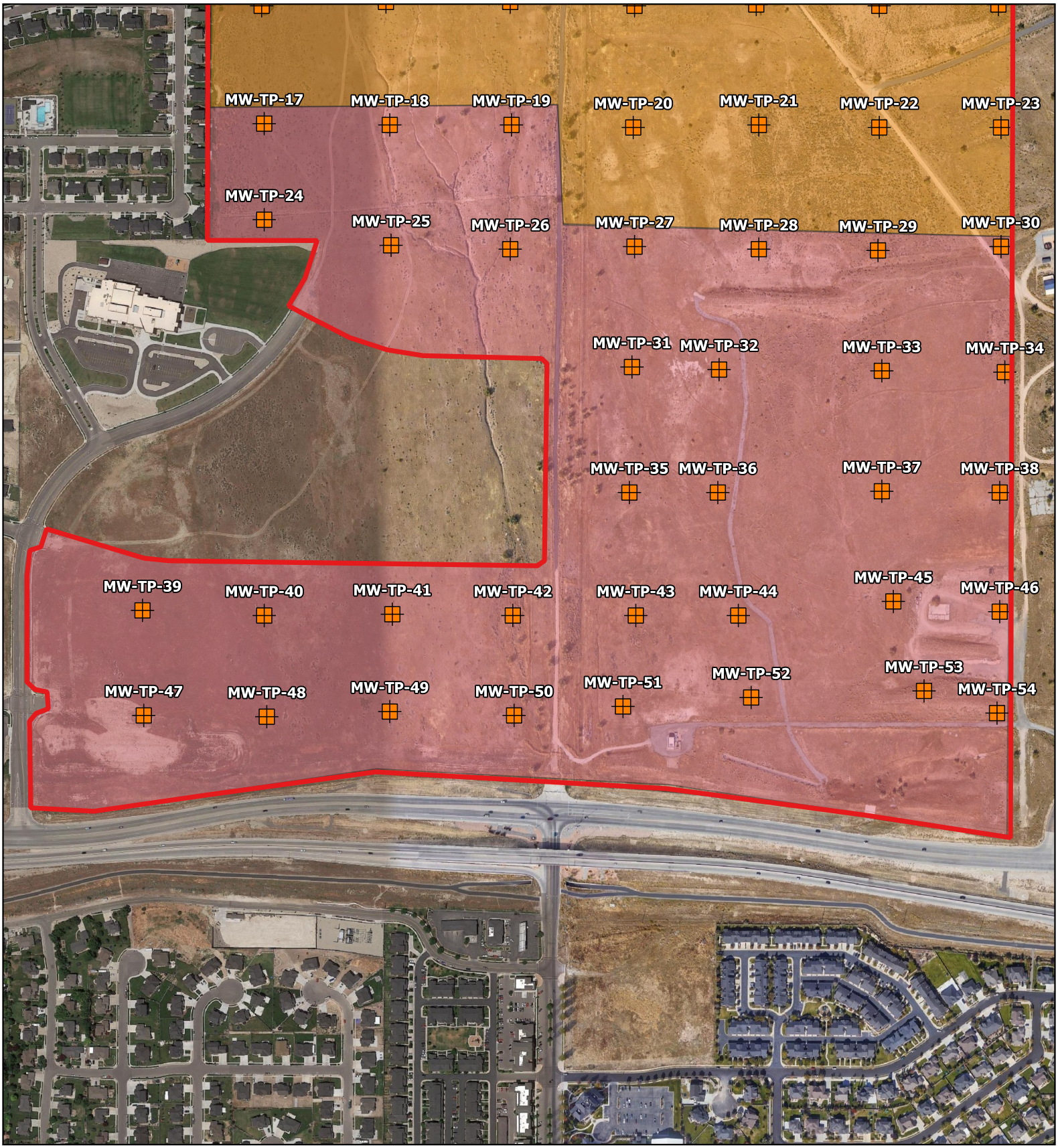
- Mircon Property Boundaries
- High Density Single Family, Commerial, and Apartments
- Lehi Emerald Single Family and Single Family
- Highland Emerald Single Family
- Mountain Single Family

D.R. Horton
Mircon Property
Lehi/Draper, Utah
Project Number

Site Section Map

Plate A-2

1151



Legend

- Mircon Property Boundaries
- Approximate Test Pit Location
- High Density Single Family, Commercial, and Apartments
- Lehi Emerald Single Family and Single Family

400 0 400 800 1200 1600 ft

1:6000

N

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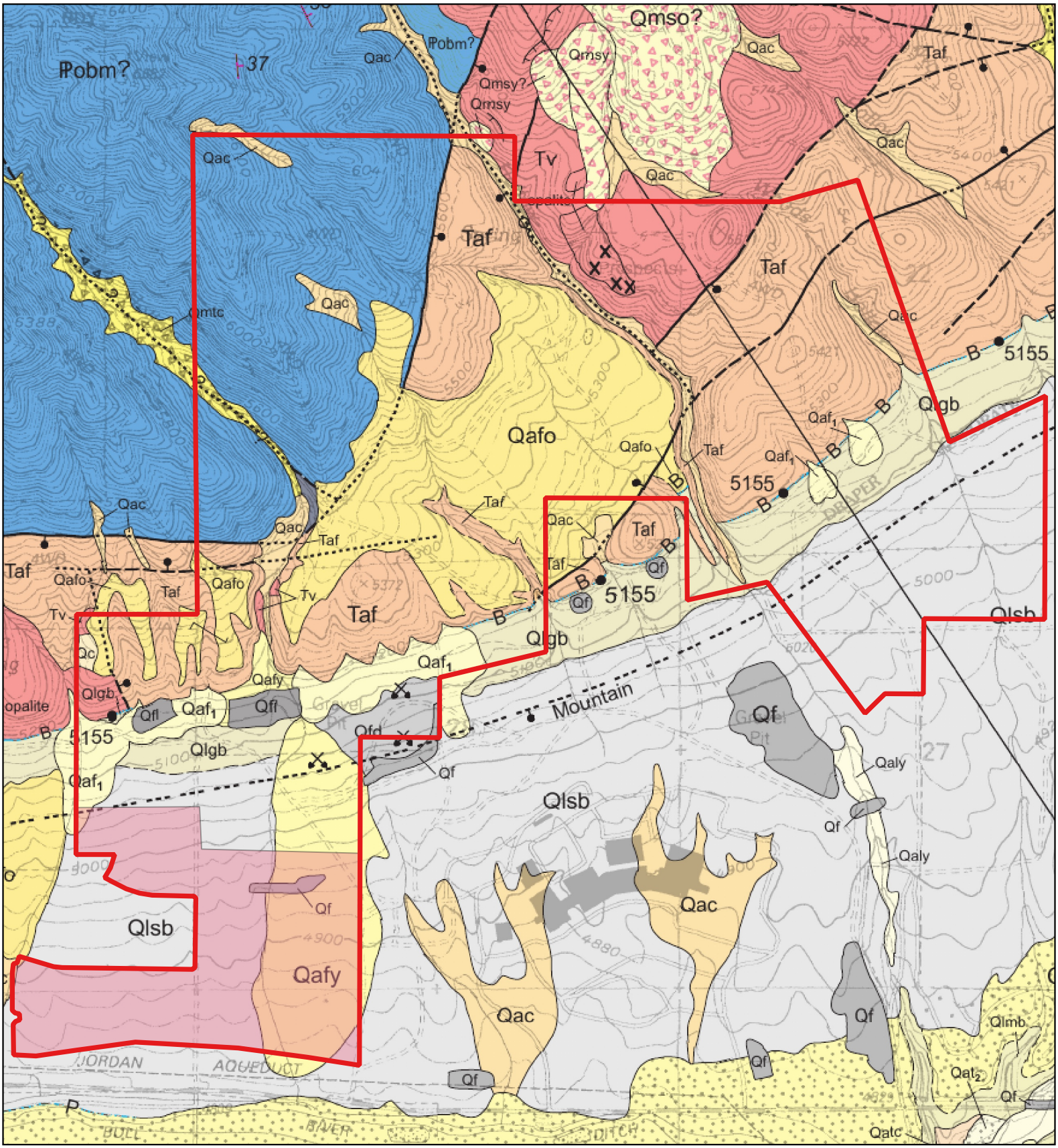
Mircon Property
Lehi/Draper, Utah

High Density Single Family, Commercial, and Apartment Section Exploration Map

Plate A-3

1152



Legend

- Mircon Property Boundaries
- High Density Single Family, Commercial, and Apartments

400 0 400 800 1200 1600 ft

1:17000

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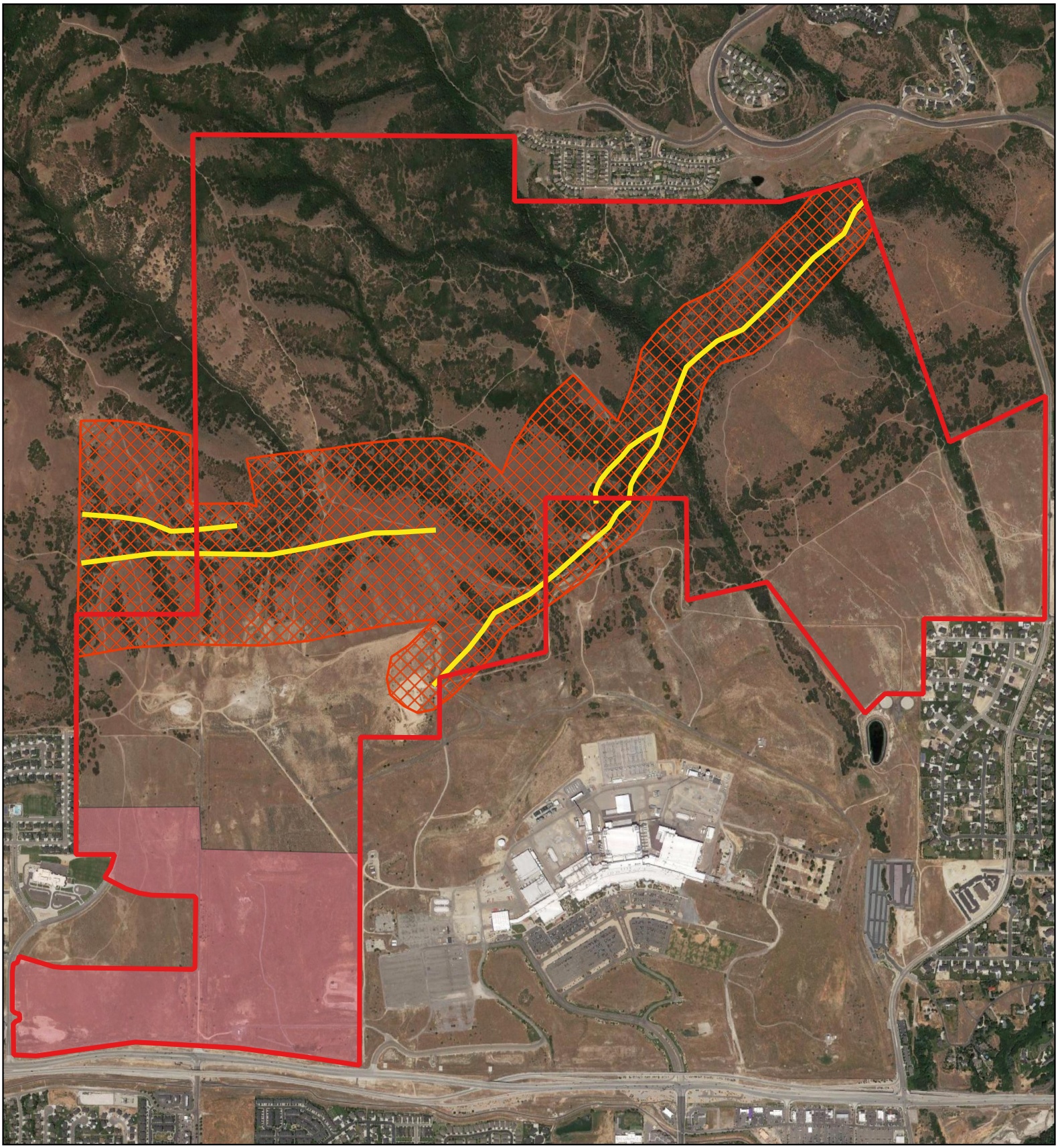
D.R. Horton
Mircon Property
Lehi/Draper, Utah
Project Number 589-100

Site Geology Map

Plate A-4

1153



Legend

- Mircon Property Boundaries
- High Density Single Family, Commercial, and Apartments
- Approximate Faults
- Fault Special Study Area

400 0 400 800 1200 1600 ft

1:17000

N

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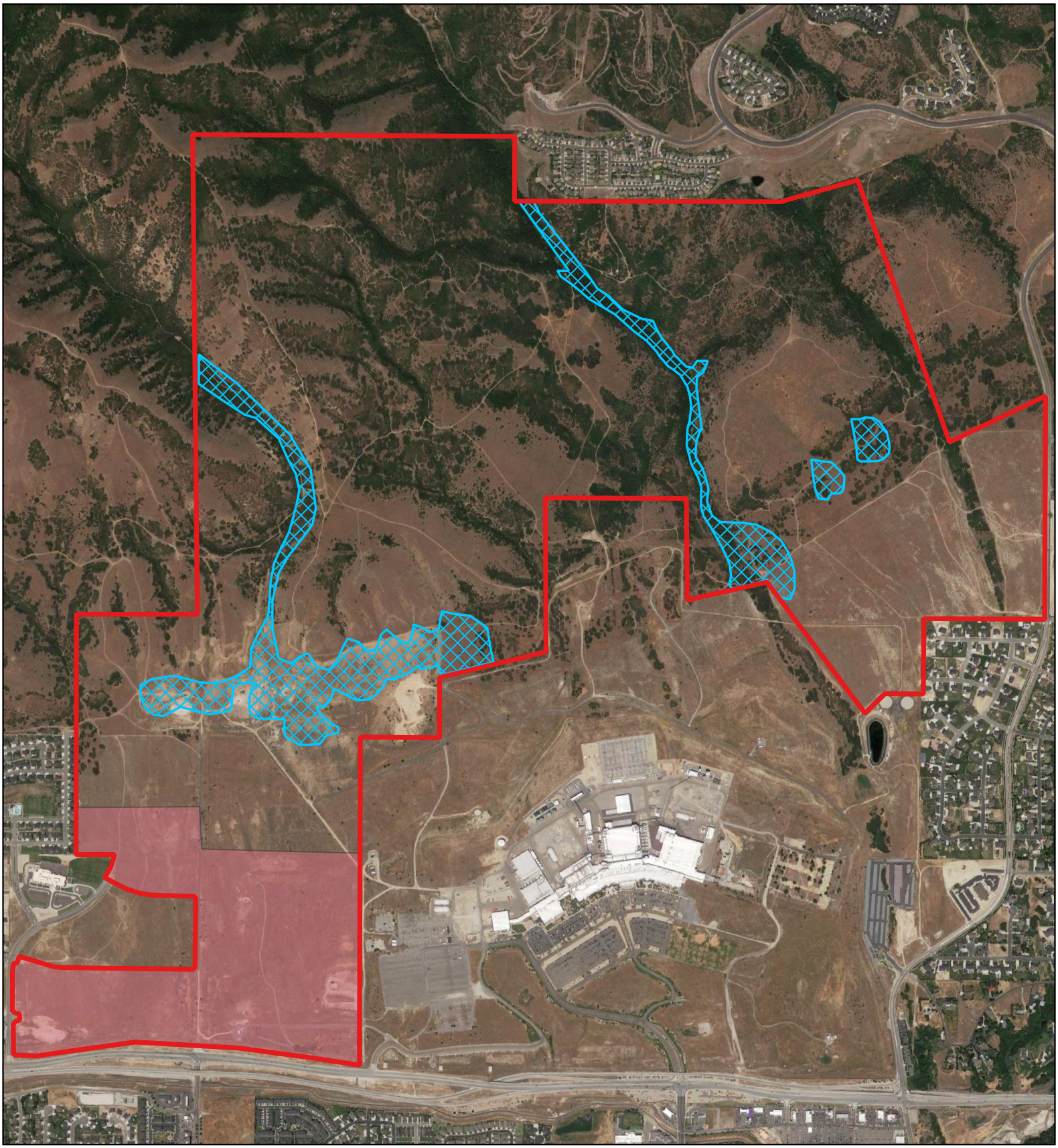
D.R. Horton
Mircon Property
Lehi/Draper, Utah
Project Number 589-100

Faults and Fault Special Study Area Map

Plate A-5



Legend

- Mircon Property Boundaries
- High Density Single Family, Commercial, and Apartments
- Debris Flow Study Areas

400 0 400 800 1200 1600 ft

1:17000

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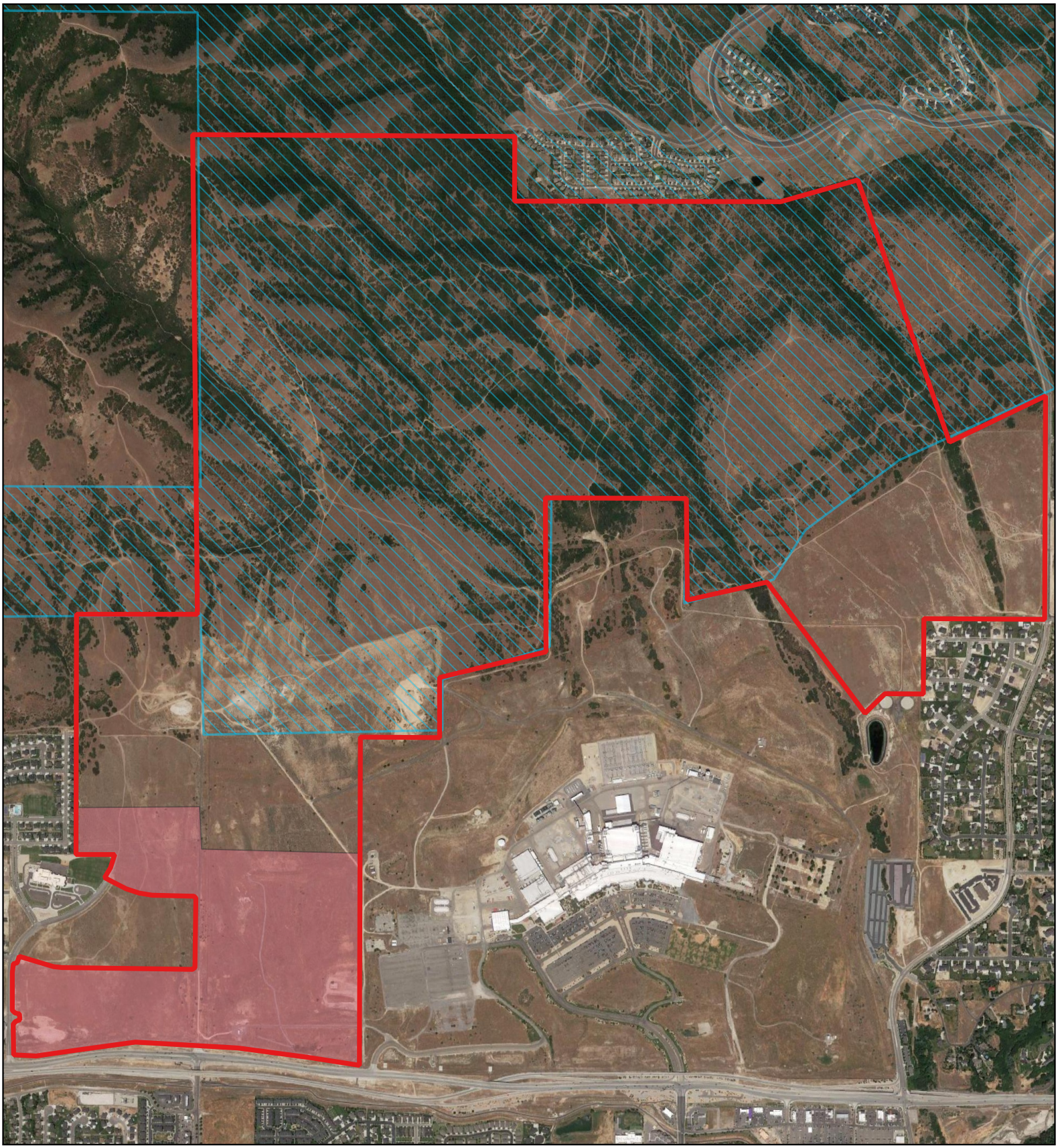
Mircon Property
Lehi/Draper, Utah
Project Number 589-100

Debris Flow Special Study Area Map

Plate A-6



Legend

- Mircon Property Boundaries
- Slope Stability Special Study Area
- High Density Single Family, Commercial, and Apartments

400 0 400 800 1200 1600 ft

1:17000

N

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Mircon Property
Lehi/Draper, Utah
Project Number 589-100

Slope Special Study Area Map

Plate A-7

APPENDIX B

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-17
Sheet 1 of 1

LOCATION
NORTHING 4,476,957.00 EASTING 4,476,957.00 ELEVATION 5,040-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - medium dense, moist, dark brown						
1								4.1	25.6	NP	NP	
	5											
2												
					SM	Sandy SILT with gravel - stiff, moist, light brown						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 1

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-18
Sheet 1 of 1

LOCATION
NORTHING 4,476,959.00 EASTING 4,476,959.00 ELEVATION 5,024-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					CL	Lean CLAY with sand - stiff, moist, dark brown						
1						-light brown, with iron staining	86.7	20.1	85.1			●
	5											
2					SP	Poorly Graded SAND with gravel - medium dense, moist, light brown, subrounded gravel up to 3 inches in diameter						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 2

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-19
Sheet 1 of 1

LOCATION
NORTHING 4,476,956.00 EASTING 4,476,956.00 ELEVATION 5,018-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - dense, moist, light brown, gravels and cobbles up to 6 inches in diameter						
1												
	5											
					ML	Sandy SILT - stiff, moist, tan	88.6	8.1	65.1			●
2												
3	10				SM	Silty SAND with gravel - dense, moist, tan, gravels and cobbles up to 6 inches in diameter						
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 3

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-24
Sheet 1 of 1

LOCATION
NORTHING 4,476,845.80 EASTING 4,476,845.80 ELEVATION 5,001-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					ML	SILT with sand and gravel - medium dense, moist, tan						
1					GC	Clayey GRAVEL with sand - dense, moist, light brown, gravels and cobbles up to 6 inches in diameter	3.8		13.5	27	12	
	5											
2					SP	Poorly Graded SAND with gravel - medium dense, moist, light brown						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 4

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-25
Sheet 1 of 1

LOCATION
NORTHING 4,476,814.00 EASTING 4,476,814.00 ELEVATION 4,986-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SP-SM	Poorly Graded SAND with silt - medium dense, moist, light brown						
1												
	5											
2												
3	10											
						Bottom of Test Pit @ 11 Feet		5.0	8.9	NP	NP	
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 5

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-26
Sheet 1 of 1

LOCATION
NORTHING 4,476,810.20 EASTING 4,476,810.20 ELEVATION 4,975-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					GM	Silty GRAVEL with sand - medium dense, moist, tan, occasional cobbles throughout						
1								3.3	27.9			●
					ML	Sandy SILT - stiff, moist, tan						
	5											
2												
						Bottom of Test Pit @ 8 Feet						
3	10											
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 6

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-27
Sheet 1 of 1

LOCATION
NORTHING 4,476,814.00 EASTING 4,476,814.00 ELEVATION 4,965-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - dense, moist, light brown, gravels and cobbles up to 6 inches in diameter						
1					SP	Poorly Graded SAND with gravel - medium dense, moist, light brown						
	5											
					SM	Silty SAND with gravel - dense, moist, light brown, gravels and cobbles up to 6 inches in diameter						
2					SP	Poorly Graded SAND with gravel - medium dense, moist, light brown						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 7

TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout

CL-ML Sandy Silty CLAY - stiff, moist, tan

107.0	6.8	79.2	25	18	

SM Silty SAND with gravel - dense, moist, light brown

Bottom of Test Pit @ 12 Feet

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-29
Sheet 1 of 1

LOCATION
NORTHING 4,476,807.40 EASTING 4,476,807.40 ELEVATION 4,961-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					ML	Sandy SILT with gravel - stiff, moist, brown						
					SC	Clayey SAND with gravel - medium dense, moist, tan		4.7	31.3	30	15	
1												
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 9

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-30
Sheet 1 of 1

LOCATION
NORTHING 4,476,814.60 EASTING 4,476,814.60 ELEVATION 4,963-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					ML	Sandy SILT with gravel - stiff, moist, dark brown						
					CL	Lean CLAY - stiff, moist. dark brown						
1							126.6	14.2	92.5	35	15	
	5					- some white mottling						
2												
						- some iron staining						
3	10					Bottom of Test Pit @ 10 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 10

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-31
Sheet 1 of 1

LOCATION
NORTHING 4,476,669.00 EASTING 4,476,669.00 ELEVATION 4,931-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					CL	Lean CLAY - stiff, moist, dark brown		10.9	95.0	32	12	
1					CL	Sandy Lean CLAY with gravel - stiff, moist. dark brown						
	5											
2												
3	10				SP	Poorly Graded SAND with gravel - medium dense, moist, brown						
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 11

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-32
Sheet 1 of 1

LOCATION
NORTHING 4,476,666.00 EASTING 4,476,666.00 ELEVATION 4,929-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					ML	Sandy SILT - stiff, moist, dark brown						
					CL	Lean CLAY with gravel - stiff, moist. brown						
1							98.9	11.1	95.9	35	14	
	5				CL	Sandy Lean CLAY with gravel - stiff, moist. brown, some iron staining						
2												
3	10				SP	Poorly Graded SAND with gravel - medium dense, moist, brown						
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 12

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO:
MW-TP-33
Sheet 1 of 1

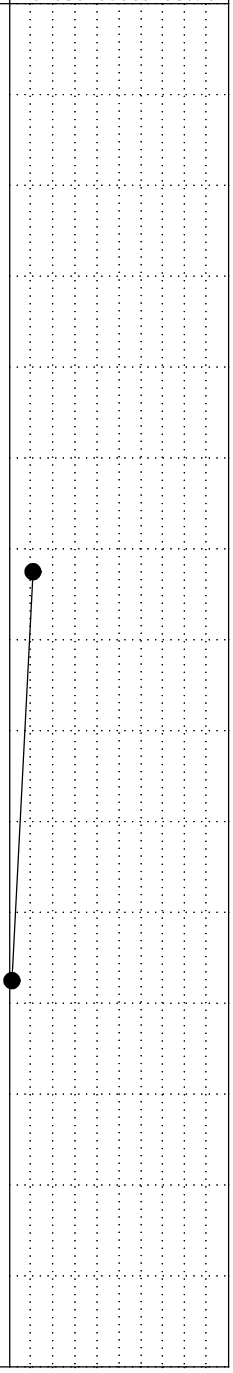
LOCATION
NORTHING 4,476,667.00 EASTING 4,476,667.00 ELEVATION 4,923-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout					
					CL	Lean CLAY with sand - stiff, moist, light brown					
1											
	5										
2							90.0	10.6	86.7		
3	10				GP-GM	Poorly Graded GRAVEL with silt and sand - medium dense, moist, tan		1.0	2.0		
						Bottom of Test Pit @ 12 Feet					
4											

Moisture Content and Atterberg Limits

Plastic Limit — Moisture Content — Liquid Limit

10 20 30 40 50 60 70 80 90



GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 13

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-34
Sheet 1 of 1

LOCATION
NORTHING 4,476,662.00 EASTING 4,476,662.00 ELEVATION 4,928-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Lean CLAY with sand and gravel - dark brown, moist, organics throughout						
					SM	Silty SAND - dense, moist, brown						
1												
	5							7.4				●
					CL	Lean CLAY with sand - stiff, moist, tan, sand was observed to be fine-grained, some iron staining						
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 14

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-35
Sheet 1 of 1

LOCATION
NORTHING 4,476,519.00 EASTING 4,476,519.00 ELEVATION 4,898-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					ML	Sandy SILT - stiff, moist, tan						
1												
	5						96.1	10.9	77.5			●
2												
					SP	Poorly Graded SAND with gravel - medium dense, moist, dark brown, subrounded gravel up to 3 inches in diameter						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 15

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-36
Sheet 1 of 1

LOCATION
NORTHING 4,476,519.00 EASTING 4,476,519.00 ELEVATION 4,892-ft

METERS	FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout					
					ML	Gravelly SILT with sand -stiff, moist, dark brown		13.9			
								6.7	40.8		
1					SM	Silty SAND - dense, moist, light brown, pinholes throughout					
	5										
2					CL	Sandy Lean CLAY - stiff, moist, light brown, iron staining					
					ML	Sandy SILT - stiff, moist, light brown, iron staining					
3	10							7.0	53.7		
						Bottom of Test Pit @ 12 Feet					
4											

Moisture Content and Atterberg Limits

Plastic Limit — Moisture Content — Liquid Limit

10 20 30 40 50 60 70 80 90

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 16

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-37
Sheet 1 of 1

LOCATION
NORTHING 4,476,523.00 EASTING 4,476,523.00 ELEVATION 4,892-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - medium dense, moist, dark brown						
1						-tan						
	5											
2					GP	Poorly Graded GRAVEL with sand - medium dense, moist, tan		1.0	1.4			●
3	10					-becomes more sandy, smaller gravel up to 1/2 inches						
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 17

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-38
Sheet 1 of 1

LOCATION
NORTHING 4,476,523.00 EASTING 4,476,523.00 ELEVATION 4,893-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - medium dense, moist, dark brown						
1					SP	Poorly Graded SAND with gravel - medium dense, moist, tan						
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 18

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-39
Sheet 1 of 1

LOCATION
NORTHING 4,476,375.00 EASTING 4,476,375.00 ELEVATION 4,877-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout					
					CL	Lean CLAY - stiff, moist. light brown		7.4	97.6		
1						-tan, iron staining	95.5	8.0	93.2		
	5										
2											
3	10										
						Bottom of Test Pit @ 12 Feet					
4											

Moisture Content and Atterberg Limits

Plastic Limit — Moisture Content — Liquid Limit

10 20 30 40 50 60 70 80 90

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 19

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-40
Sheet 1 of 1

LOCATION
NORTHING 4,476,377.00 EASTING 4,476,377.00 ELEVATION 4,875-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					CL-ML	Silty CLAY - medium stiff, moist, light brown, pinholes throughout						
1												
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 20

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-41
Sheet 1 of 1

LOCATION
NORTHING 4,476,373.00 EASTING 4,476,373.00 ELEVATION 4,873-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout					
					GC	Clayey GRAVEL with sand - dense, moist, dark brown		6.7	40.8	32	13
1					CL	Sandy Lean CLAY - medium dense, moist, light brown					
	5					-lighter tan brown	88.6	5.5	53.1		
2											
					SP	Poorly Graded SAND with gravel - medium dense, moist, tan					
3	10										
						Bottom of Test Pit @ 12 Feet					
4											

Moisture Content and Atterberg Limits

Plastic Limit — Moisture Content — Liquid Limit

10 20 30 40 50 60 70 80 90

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 21

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-42
Sheet 1 of 1

LOCATION
NORTHING 4,476,373.00 EASTING 4,476,373.00 ELEVATION 4,869-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - medium dense, moist, dark brown						
1												
	5											
						-smaller gravel 1/2 inches in diameter		5.9	42.9	22	4	
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 22

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-43
Sheet 1 of 1

LOCATION
NORTHING 4,476,370.00 EASTING 4,476,370.00 ELEVATION 4,865-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					ML	Sandy SILT with gravel - stiff, moist, brown						
1												
					SP	Silty SAND with gravel - medium dense, moist, light brown						
	5											
2												
					ML	Sandy SILT - hard, moist, light brown	86.8	7.1	68.9			●
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 23

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-44
Sheet 1 of 1

LOCATION
NORTHING 4,476,377.00 EASTING 4,476,377.00 ELEVATION 4,866-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					ML	Sandy SILT - stiff, moist, dark brown, pinholes throughout						
1												
					SM	Silty SAND - medium dense, moist, light tan, pinholes throughout						
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 24

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-45
Sheet 1 of 1

LOCATION
NORTHING 4,476,386.00 EASTING 4,476,386.00 ELEVATION 4,865-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					CL	Sandy Lean CLAY - stiff, moist, brown		6.0	68.6	27	10	
1					SM	Silty SAND with gravel - medium dense, moist, dark brown						
	5											
2					SP	Poorly Graded SAND with gravel - medium dense, moist, tan, subrounded gravel						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 25

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO:
MW-TP-46
Sheet 1 of 1

LOCATION
NORTHING 4,476,379.00 EASTING 4,476,379.00 ELEVATION 4,860-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					GM	Silty GRAVEL with sand - very dense, moist, dark brown						
1								6.0	40.9			●
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 26

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-47
Sheet 1 of 1

LOCATION
NORTHING 4,476,246.00 EASTING 4,476,246.00 ELEVATION 4,859-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					CL	Lean CLAY - Stiff, moist, dark brown, pinholes						
1												
	5											
2							95.0	9.3	93.1			●
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 27

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO:
MW-TP-48
Sheet 1 of 1

LOCATION
NORTHING 4,476,254.00 EASTING 4,476,254.00 ELEVATION 4,846-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					SP	Silty SAND with gravel - medium dense, moist, dark brown						
1												
	5					-color change to light brown						
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 28

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO:
MW-TP-49
Sheet 1 of 1

LOCATION
NORTHING 4,476,257.00 EASTING 4,476,257.00 ELEVATION 4,852-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout					
					SC	Clayey SAND - dense, moist, light brown, small organics, iron staining					
								6.4	46.0	30	14
1											
	5										
					CL	Lean CLAY - hard, moist, dark brown	105.0	15.7	95.6		
2											
3	10										
						Bottom of Test Pit @ 12 Feet					
4											

Moisture Content and Atterberg Limits

Plastic Limit — Moisture Content — Liquid Limit

10 20 30 40 50 60 70 80 90

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 29

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-50
Sheet 1 of 1

LOCATION
NORTHING 4,476,254.00 EASTING 4,476,254.00 ELEVATION 4,848-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - medium dense, moist, light brown						
1												
					SM	Silty SAND - dense, moist, light brown						
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 30

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-51
Sheet 1 of 1

LOCATION
NORTHING 4,476,265.00 EASTING 4,476,265.00 ELEVATION 4,849-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					CL	Lean CLAY - stiff, moist, dark brown		9.9	87.0	32	14	
1												
					SM	Silty SAND - medium dense, moist, light brown						
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 31

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-52
Sheet 1 of 1

LOCATION
NORTHING 4,476,274.00 EASTING 4,476,274.00 ELEVATION 4,849-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					CL	Lean CLAY - stiff, moist, dark brown						
1						- iron staining	104.4	14.7	93.1			●
	5											
2												
					SM	Silty SAND - medium dense, moist, gray						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 32

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-53
Sheet 1 of 1

LOCATION
NORTHING 4,476,263.00 EASTING 4,476,263.00 ELEVATION 4,844-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - medium dense, moist, dark brown						
					CL	Gravelly Lean CLAY with sand - stiff. moist, dark brown		7.0	56.9	27	11	
1												
	5				SP	Poorly Graded SAND with gravel - medium dense, moist, tan, subrounded gravel						
2												
						Bottom of Test Pit @ 8 Feet						
3	10											
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 33

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-54
Sheet 1 of 1

LOCATION
NORTHING 4,476,268.00 EASTING 4,476,268.00 ELEVATION 4,852-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					CL	Lean CLAY - stiff, moist, light brown						
1												
	5											
2												
							86.7	13.6	88.6			●
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 34

Unified Soil Classification Per ASTM D 2488

Primary Divisions			Group Symbol	Group Name
COARSE-GRAINED SOILS more than 50% retained on the No. 200 Sieve	GRAVEL More than half of the coarse fraction is larger than the #4 sieve	Clean Gravel	GW	Well Graded GRAVEL
			GP	Poorly Graded GRAVEL
		Gravel with Duel Classifications	GW-GM	Well Graded GRAVEL with silt
			GP-GM	Poorly Graded GRAVEL with silt
			GW-GC	Well Graded GRAVEL with clay
			GP-GC	Poorly Graded GRAVEL with clay
		Gravel with Fines	GM	Silty GRAVEL
			GC	Clayey GRAVEL
			GC-GM	Silty, Clayey GRAVEL
	SAND More than half of the coarse fraction is smaller than the #4 sieve	Clean Sand	SW	Well Graded SAND
			SP	Poorly Graded SAND
		Sand with Dual Classifications	SW-SM	Well Graded SAND with silt
			SP-SM	Poorly Graded SAND with silt
			SW-SC	Well Graded SAND with clay
			SP-SC	Well Graded SAND with clay
		Sand with Fines	SM	Silty SAND
			SC	Clayey SAND
			SC-SM	Silty, Clayey SAND
FINE-GRAINED SOILS 50% or more passes No. 200 Sieve	SILTY & CLAY less than 50%	Inorganic	CL	Lean CLAY
			ML	SILT
			CL-ML	Silty CLAY
		Organic	OL	Organic CLAY or Organic SILT
	SILTY & CLAY LL 50% or more	Inorganic	CH	Fat CLAY
			MH	Elastic SILT
		Organic	OH	Organic CLAY or Organic SILT
	Highly Organic Soils		PT	Peat

Exploration Log Key

Sample Symbols	Ground Water Symbol	
Auger Cuttings	Measured Groundwater Elevation	
California Sampler	Estimated Groundwater Elevation	
	Relative Density	**SPT N (blows/ft)**
Rock Core	Very Loose	0 to 4
	Loose	5 to 10
	Med. Dense	11 to 30
Bag or Block Sample	Dense	31 to 50
	Very Dense	>51
	Consistency	**SPT N (blows/ft)**
Modified California Sampler	Very Soft	0 to 1
	Soft	2 to 4
No Recovery	Med. Stiff	5 to 8
	Stiff	9 to 15
	Very Stiff	16 to 30
Split Spoon	Hard	31 to 60
	Very Hard	>61
	Modifiers	
Shelby Tube	Description	Percentage
	Trace	less than 5
Dames and More Sampler	Some	5 to 12
	With	more than 12

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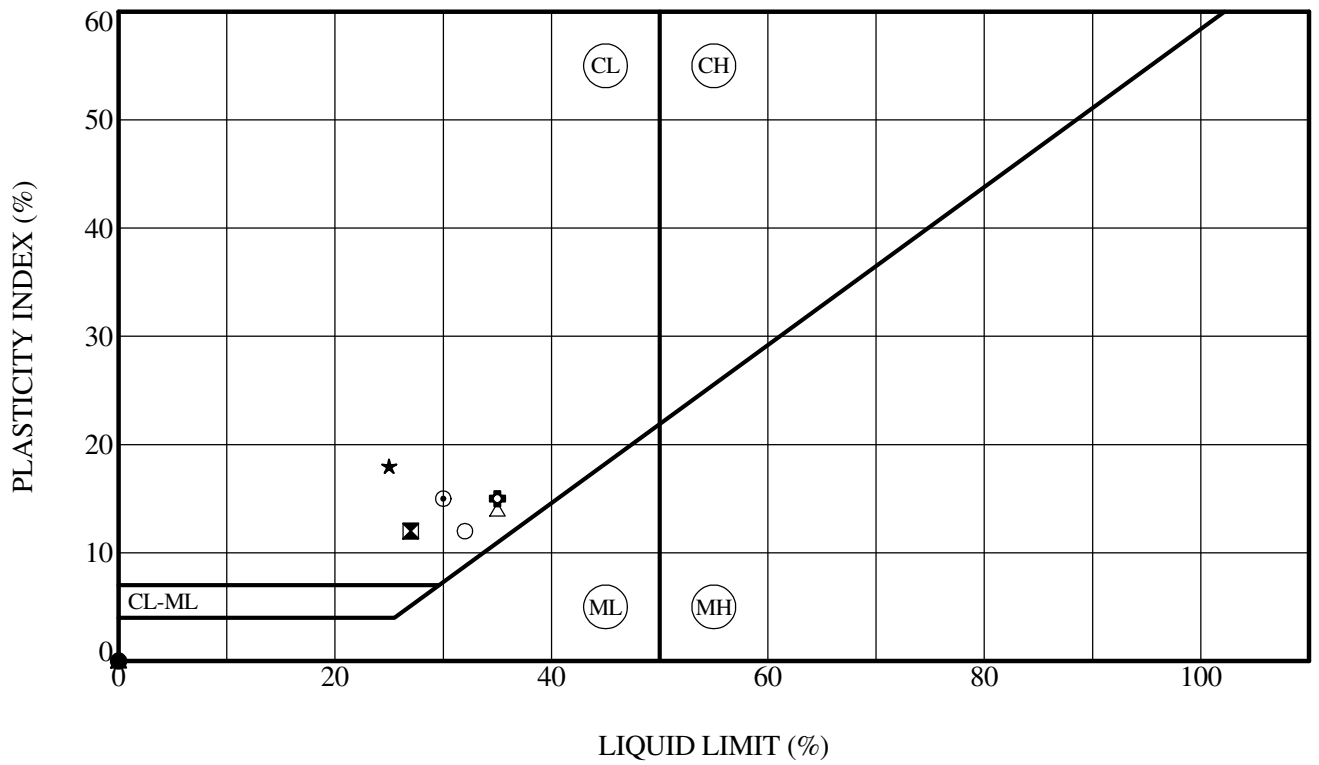
Soil Symbols and Description Key

D.R. Horton
Micron Property
Lehi/Draper, Utah
Project Number: 589-100

Plate B-35

APPENDIX C

Test Pit No.	Sample Depth (feet)	USCS Soil Classification	Natural Moisture Content (%)	Natural Dry Density (pcf)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Gradation			Atterberg		Collapse (%)	CBR (%)
							Gravel (%)	Sand (%)	Fines (%)	LL	PI		
MW-TP-17	4	SM	4.1				35.6	38.8	25.6	NP	NP		
MW-TP-18	3	CL	20.1	86.7					85.1			0.07	
MW-TP-19	6	ML	8.1	88.6					65.1			1.4	
MW-TP-24	3.5	GC	3.8	3.8			51.9	34.6	13.5	27	12		
MW-TP-25	11	SP-SM	5				6.7	84.4	8.9	NP	NP		
MW-TP-26	3	GM	3.3				2.3	69.8	27.9				
MW-TP-28	3.5	CL-ML	6.8	107					79.2	25	18	0.47	
MW-TP-29	2	SC	4.7				23.4	45.3	31.3	30	15		
MW-TP-30	4	CL	14.2	126.6					92.5	35	15	0.4	
MW-TP-31	2	CL	10.9				0.1	4.9	95.0	32	12		
MW-TP-32	3.5	CL	11.1	98.9			1.3	2.8	95.9	35	14	0.01	
MW-TP-33	6	CL	10.6	90					86.7			0.1	
MW-TP-33	10.5	GP-GM	1				74.5	23.5	2.0				
MW-TP-34	4.5	SM	7.4										
MW-TP-35	5	ML	10.9	96.1					77.5			0.12	
MW-TP-36	1	ML	13.9										
MW-TP-36	1.5	ML	6.7				36.0	23.2	40.8				
MW-TP-36	10	ML	7				6.0	40.3	53.7				
MW-TP-37	6	GP	1				81.6	17.0	1.4				
MW-TP-39	2	CL	7.4				0.0	2.4	97.6				
MW-TP-39	3.5	CL	8	95.5					93.2			0.21	
MW-TP-41	1.5	GC	6.7		10.9	121.1	28.7	20.8	40.8	32	13		11.6
MW-TP-41	5	CL	5.5	88.6					53.1			0.01	
MW-TP-42	6	SM	5.9				12.6	44.5	42.9	22	4		
MW-TP-43	8	ML	7.1	86.8					68.9			3.55	
MW-TP-45	2	CL	6		11.7	112	13.3	18.1	68.6	27	10		5.3
MW-TP-46	3.5	GM	6				31.6	27.5	40.9				
MW-TP-47	6	CL	9.3	95					93.1			0.65	
MW-TP-49	2	SC	6.4				3.3	50.7	46.0	30	14		
MW-TP-49	6	CL	15.7	105					95.6				
MW-TP-51	2	CL	9.9				1.0	12.0	87.0	32	14		
MW-TP-52	4	CL	14.7	104.4					93.1				
MW-TP-53	2	CL	7				26.3	16.8	56.9	27	11		
MW-TP-54	8	CL	13.6	86.7					88.6			0.53	



	Sample Location	Depth (ft)	LL (%)	PL (%)	PI (%)	Fines (%)	Classification
●	**MW-TP-17**	**4.0**	**NP**	**NP**	**NP**	**25.6**	**Silty SAND with gravel**
⊠	**MW-TP-24**	**3.5**	**27**	**15**	**12**	**13.5**	**Clayey GRAVEL with sand**
▲	**MW-TP-25**	**11.0**	**NP**	**NP**	**NP**	**8.9**	**Poorly Graded SAND with silt**
★	**MW-TP-28**	**3.5**	**25**	**7**	**18**	**79.2**	**Sandy Silty CLAY**
⊙	**MW-TP-29**	**2.0**	**30**	**15**	**15**	**31.3**	**Clayey SAND with gravel**
✿	**MW-TP-30**	**4.0**	**35**	**20**	**15**	**92.5**	**Lean CLAY**
○	**MW-TP-31**	**2.0**	**32**	**20**	**12**	**95.0**	**Lean CLAY**
△	**MW-TP-32**	**3.5**	**35**	**21**	**14**	**95.9**	**Lean CLAY**

GeoStrata

ATTERBERG LIMITS' RESULTS - ASTM D 4318

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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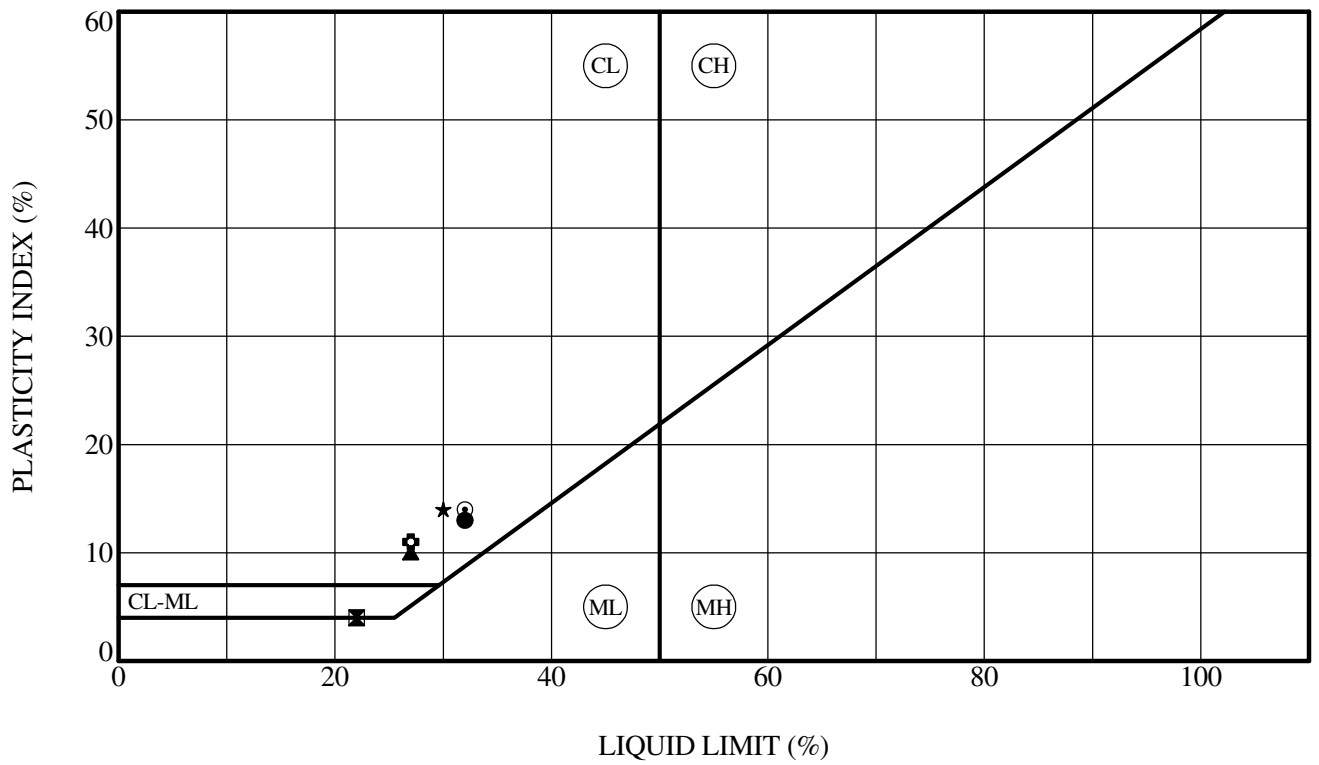
C_ATTERBERG 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	LL (%)	PL (%)	PI (%)	Fines (%)	Classification
●	**MW-TP-41**	**1.5**	**32**	**19**	**13**	**40.8**	**Clayey GRAVEL with sand**
⊠	**MW-TP-42**	**6.0**	**22**	**18**	**4**	**42.9**	**Silty SAND**
▲	**MW-TP-45**	**2.0**	**27**	**17**	**10**	**68.6**	**Sandy Lean CLAY**
★	**MW-TP-49**	**2.0**	**30**	**16**	**14**	**46.0**	**Clayey SAND**
⊙	**MW-TP-51**	**2.0**	**32**	**18**	**14**	**87.0**	**Lean CLAY**
✿	**MW-TP-53**	**2.0**	**27**	**16**	**11**	**56.9**	**Gravelly Lean CLAY with sand**

GeoStrata

ATTERBERG LIMITS' RESULTS - ASTM D 4318

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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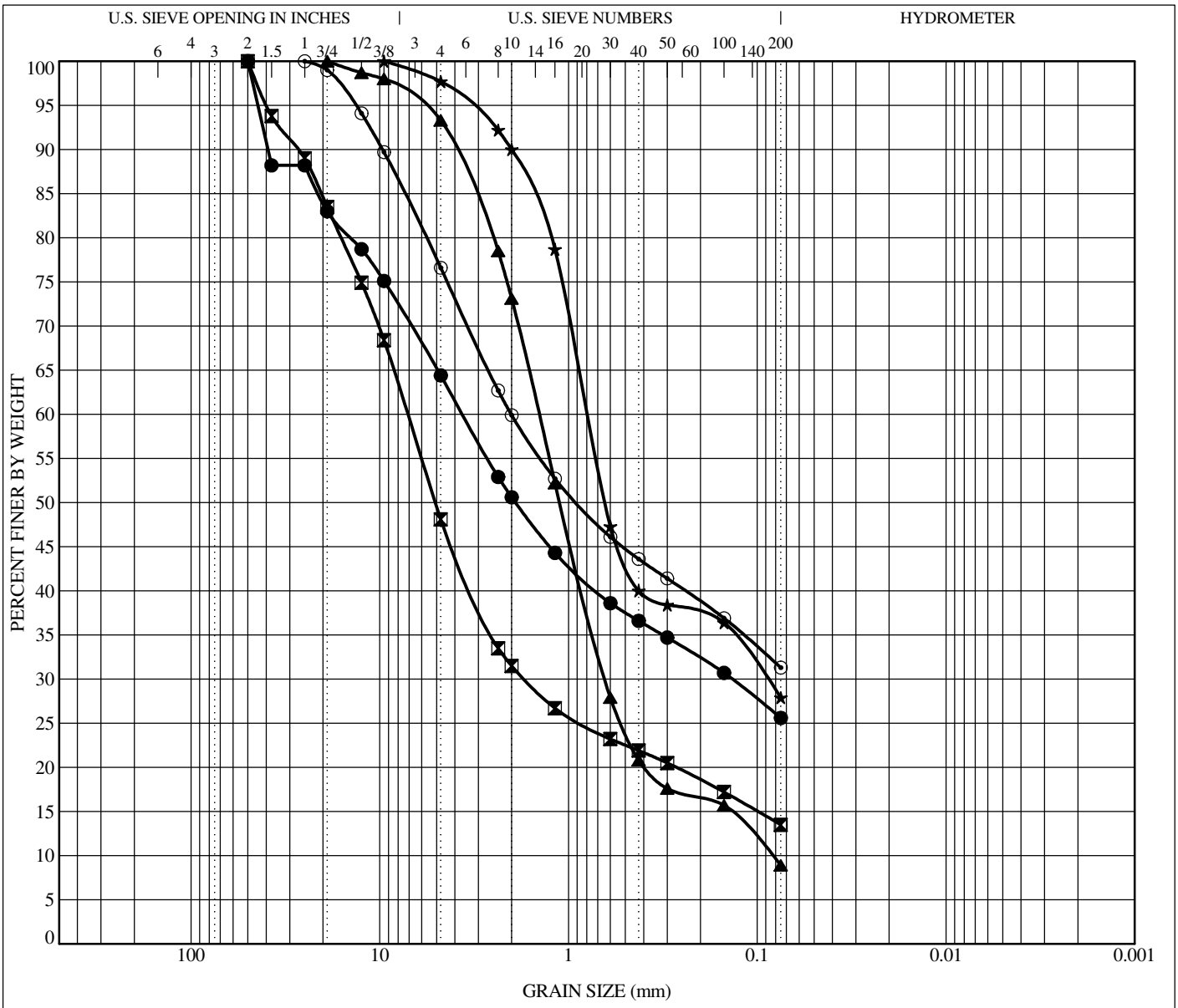
C_ATTERBERG 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Sample Location	Depth	Classification	LL	PL	PI	Cc	Cu
●	**MW-TP-17**	**4.0**	**Silty SAND with gravel**	**NP**	**NP**	**NP**		
⊠	**MW-TP-24**	**3.5**	**Clayey GRAVEL with sand**	**27**	**15**	**12**		
▲	**MW-TP-25**	**11.0**	**Poorly Graded SAND with silt**	**NP**	**NP**	**NP**	**3.36**	**17.13**
★	**MW-TP-26**	**3.0**						
⊙	**MW-TP-29**	**2.0**	**Clayey SAND with gravel**	**30**	**15**	**15**		

	Sample Loctaion	Depth	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**MW-TP-17**	**4.0**	**50**	**3.635**	**0.136**		**35.6**	**38.8**	**25.6**	
⊠	**MW-TP-24**	**3.5**	**50**	**7.131**	**1.696**		**51.9**	**34.6**	**13.5**	
▲	**MW-TP-25**	**11.0**	**19**	**1.437**	**0.636**	**0.084**	**6.7**	**84.4**	**8.9**	
★	**MW-TP-26**	**3.0**	**9.5**	**0.789**	**0.089**		**2.3**	**69.8**	**27.9**	
⊙	**MW-TP-29**	**2.0**	**25**	**2.012**			**23.4**	**45.3**	**31.3**	

GeoStrata

GRAIN SIZE DISTRIBUTION - ASTM D422

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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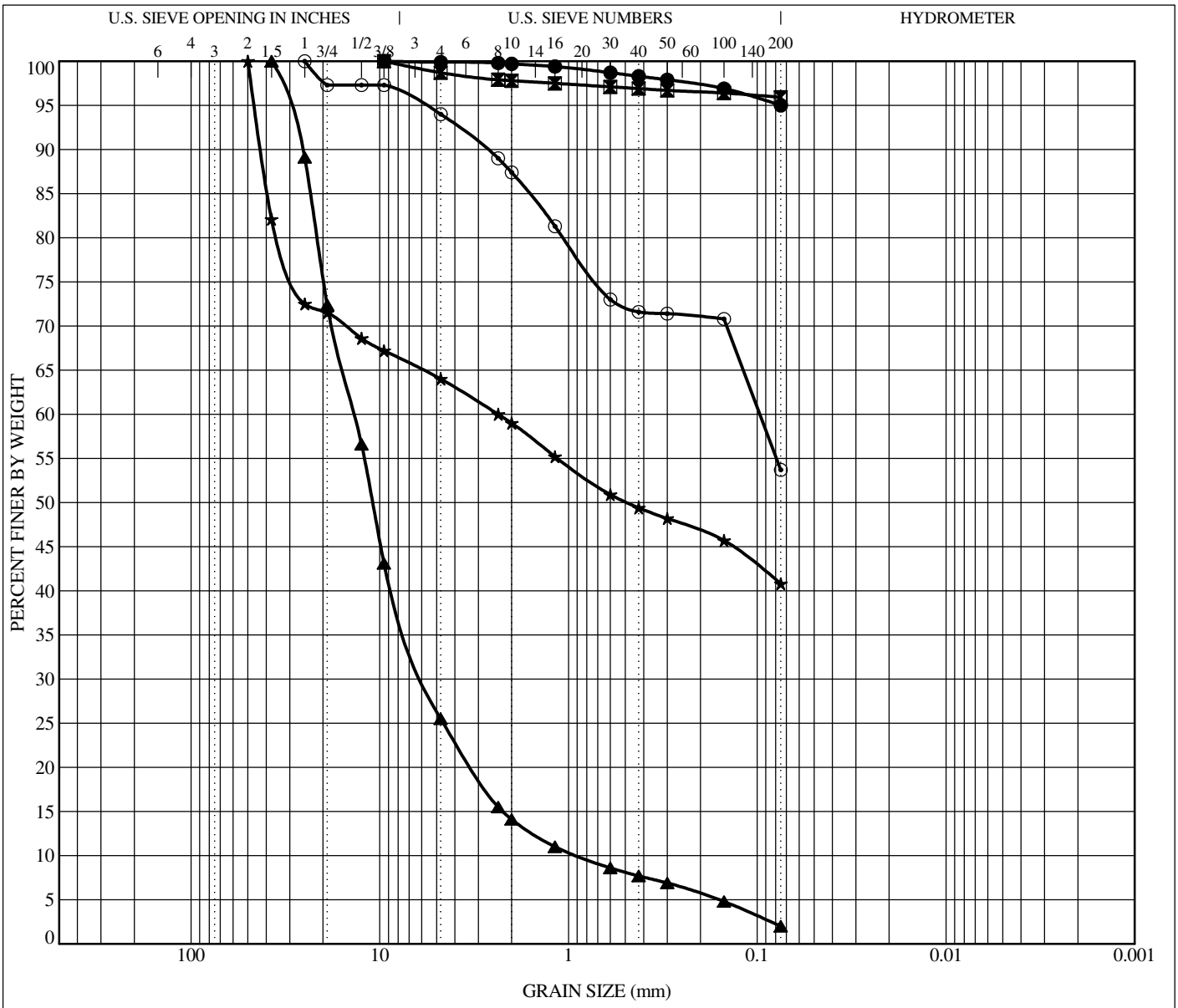
C_GSD 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Sample Location	Depth	Classification	LL	PL	PI	Cc	Cu
●	**MW-TP-31**	**2.0**	**Lean CLAY**	**32**	**20**	**12**		
⊠	**MW-TP-32**	**3.5**	**Lean CLAY**	**35**	**21**	**14**		
▲	**MW-TP-33**	**10.5**	**Poorly Graded GRAVEL with silt and sand**				**2.64**	**15.37**
★	**MW-TP-36**	**1.5**	**Gravelly SILT with sand**					
⊙	**MW-TP-36**	**10.0**	**Sandy SILT**					

	Sample Loctaion	Depth	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**MW-TP-31**	**2.0**	**9.5**				**0.1**	**4.9**	**95.0**	
⊠	**MW-TP-32**	**3.5**	**9.5**				**1.3**	**2.8**	**95.9**	
▲	**MW-TP-33**	**10.5**	**37.5**	**13.679**	**5.671**	**0.89**	**74.5**	**23.5**	**2.0**	
★	**MW-TP-36**	**1.5**	**50**	**2.36**			**36.0**	**23.2**	**40.8**	
⊙	**MW-TP-36**	**10.0**	**25**	**0.097**			**6.0**	**40.3**	**53.7**	

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GRAIN SIZE DISTRIBUTION - ASTM D422

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

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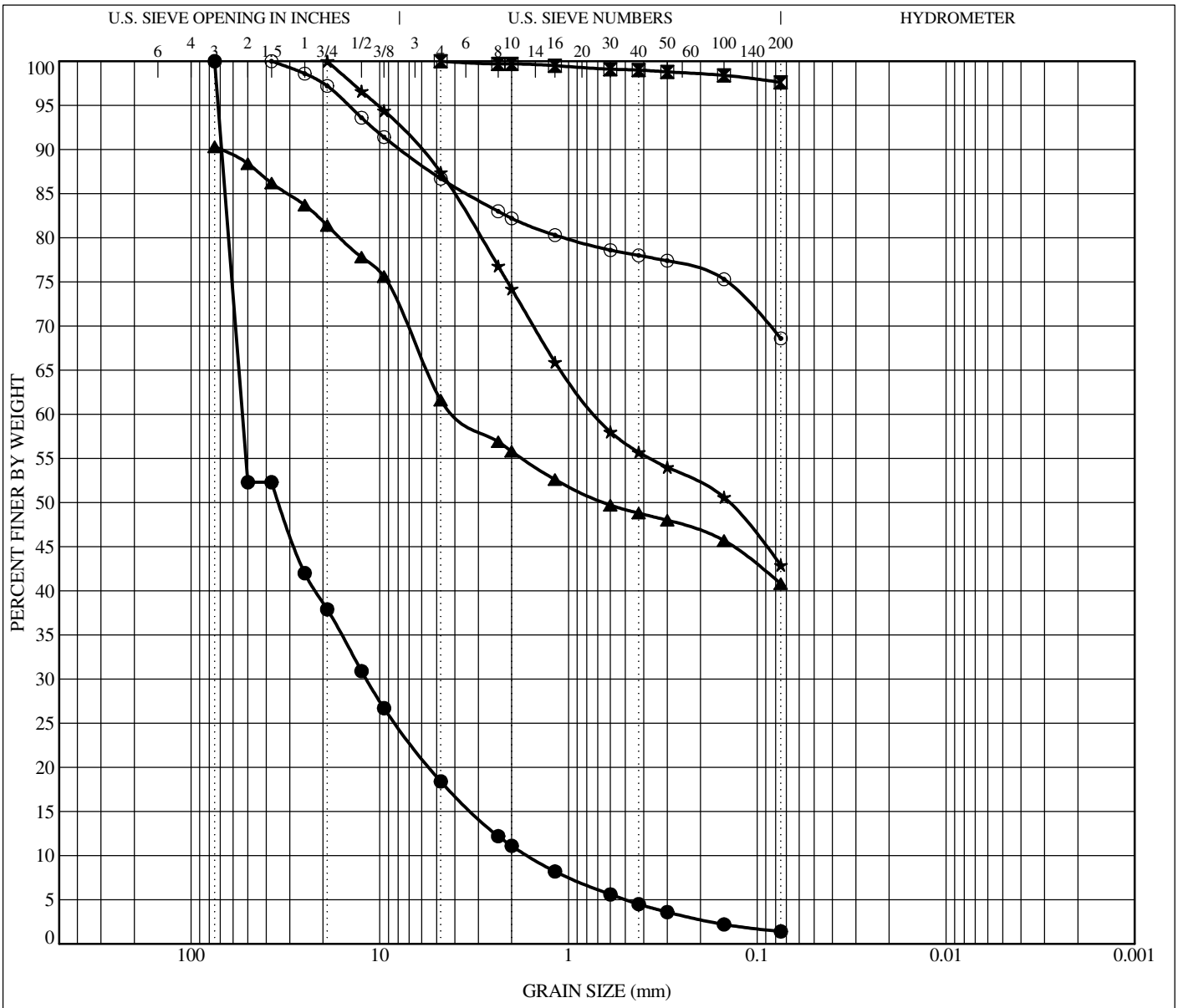
C_GSD 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Sample Location	Depth	Classification	LL	PL	PI	Cc	Cu
●	**MW-TP-37**	**6.0**	**Poorly Graded GRAVEL with sand**				**1.59**	**32.60**
⊠	**MW-TP-39**	**2.0**	**Lean CLAY**					
▲	**MW-TP-41**	**1.5**	**Clayey GRAVEL with sand**	**32**	**19**	**13**		
★	**MW-TP-42**	**6.0**	**Silty SAND**	**22**	**18**	**4**		
⊙	**MW-TP-45**	**2.0**	**Sandy Lean CLAY**	**27**	**17**	**10**		

	Sample Loctaion	Depth	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**MW-TP-37**	**6.0**	**75**	**53.382**	**11.786**	**1.637**	**81.6**	**17.0**	**1.4**	
⊠	**MW-TP-39**	**2.0**	**4.75**				**0.0**	**2.4**	**97.6**	
▲	**MW-TP-41**	**1.5**	**75**	**3.744**			**28.7**	**20.8**	**40.8**	
★	**MW-TP-42**	**6.0**	**19**	**0.712**			**12.6**	**44.5**	**42.9**	
⊙	**MW-TP-45**	**2.0**	**37.5**				**13.3**	**18.1**	**68.6**	

GeoStrata

GRAIN SIZE DISTRIBUTION - ASTM D422

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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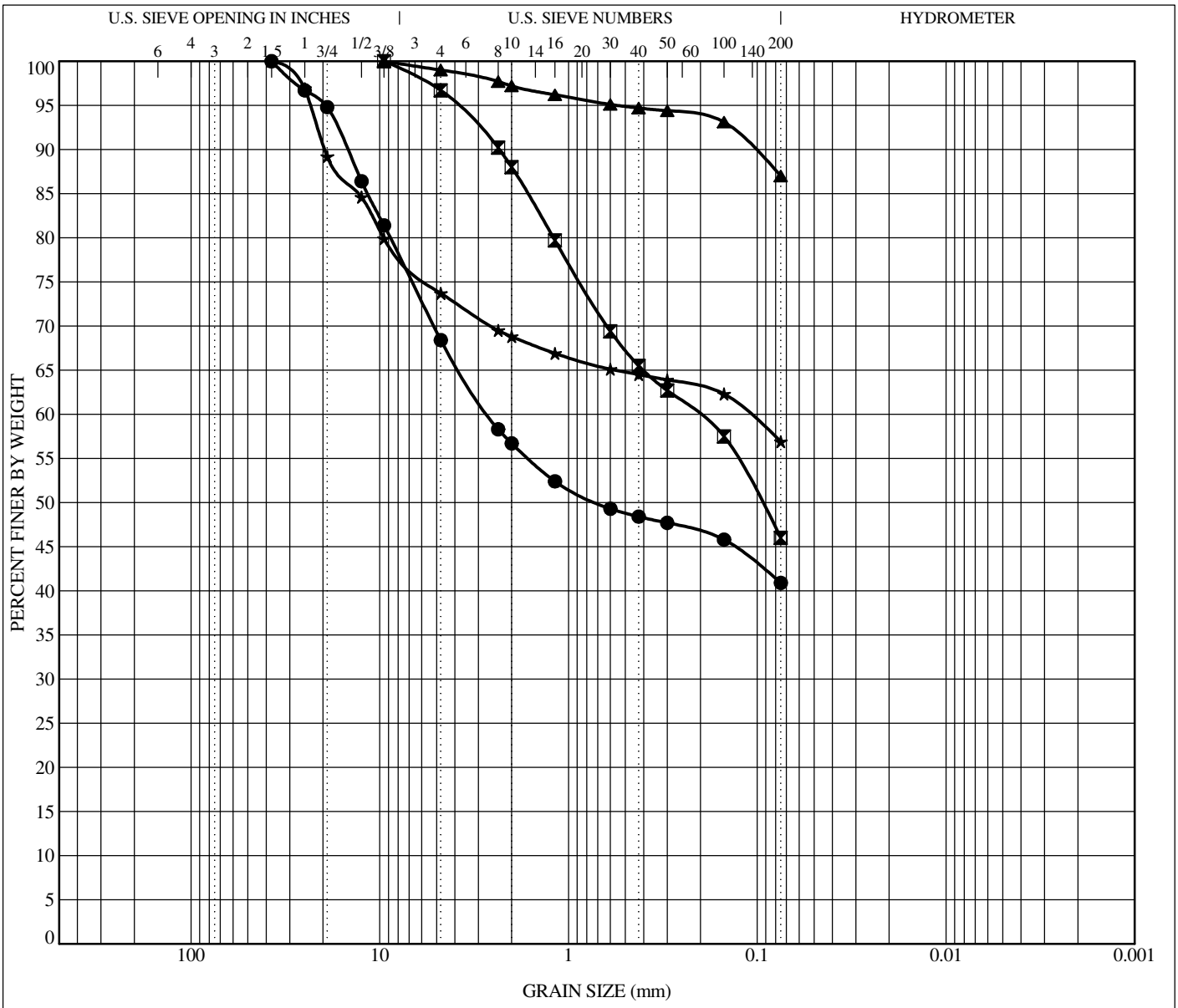
C_GSD 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Sample Location	Depth	Classification	LL	PL	PI	Cc	Cu
●	**MW-TP-46**	**3.5**	**Silty GRAVEL with sand**					
⊠	**MW-TP-49**	**2.0**	**Clayey SAND**	**30**	**16**	**14**		
▲	**MW-TP-51**	**2.0**	**Lean CLAY**	**32**	**18**	**14**		
★	**MW-TP-53**	**2.0**	**Gravelly Lean CLAY with sand**	**27**	**16**	**11**		

	Sample Loctaion	Depth	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**MW-TP-46**	**3.5**	**37.5**	**2.655**			**31.6**	**27.5**	**40.9**	
⊠	**MW-TP-49**	**2.0**	**9.5**	**0.209**			**3.3**	**50.7**	**46.0**	
▲	**MW-TP-51**	**2.0**	**9.5**				**1.0**	**12.0**	**87.0**	
★	**MW-TP-53**	**2.0**	**37.5**	**0.112**			**26.3**	**16.8**	**56.9**	

GeoStrata

GRAIN SIZE DISTRIBUTION - ASTM D422

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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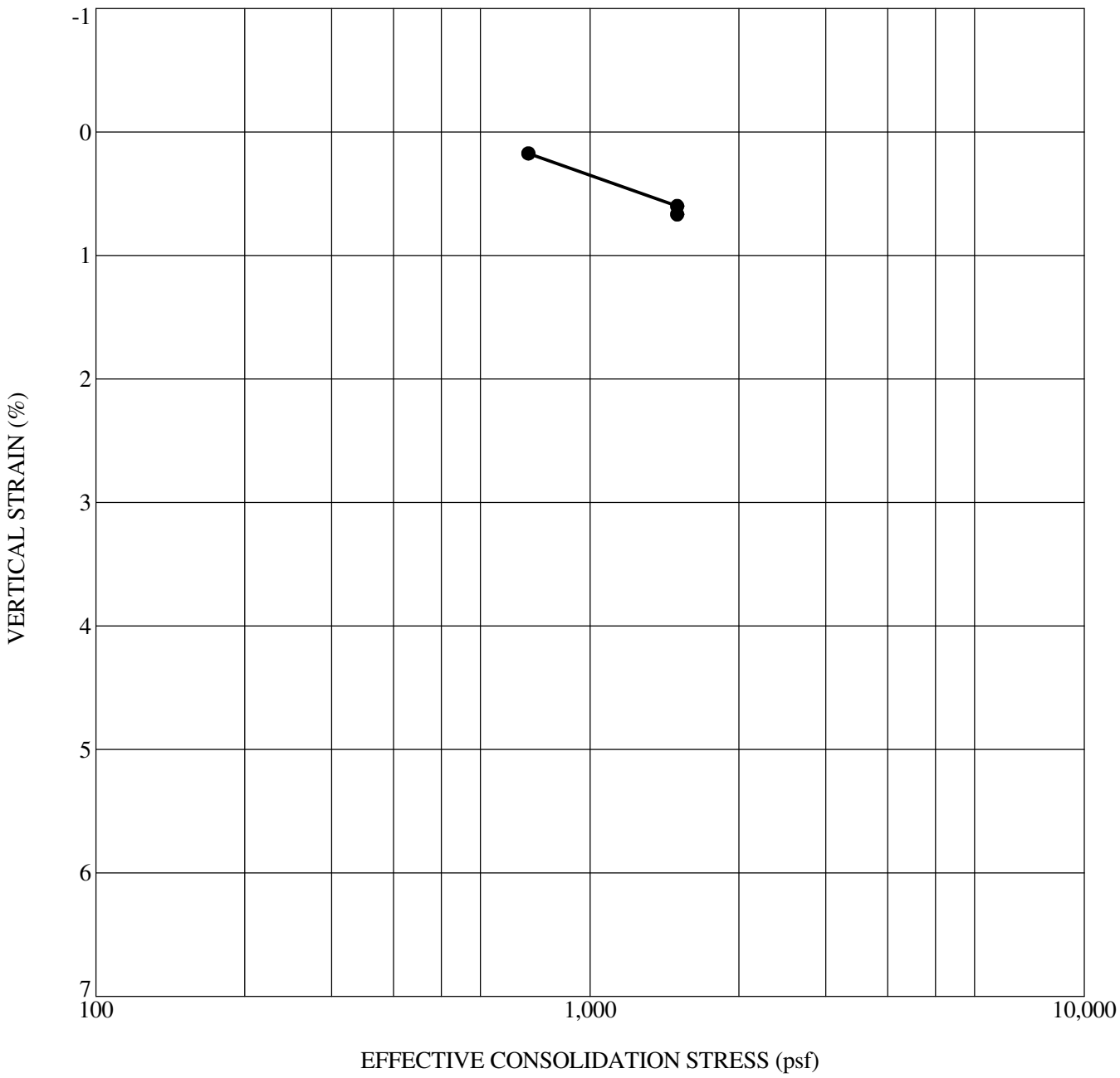
C_GSD 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-18**	**3.0**	**Lean CLAY with sand**	**87**	**20**				**1500**		**0.07**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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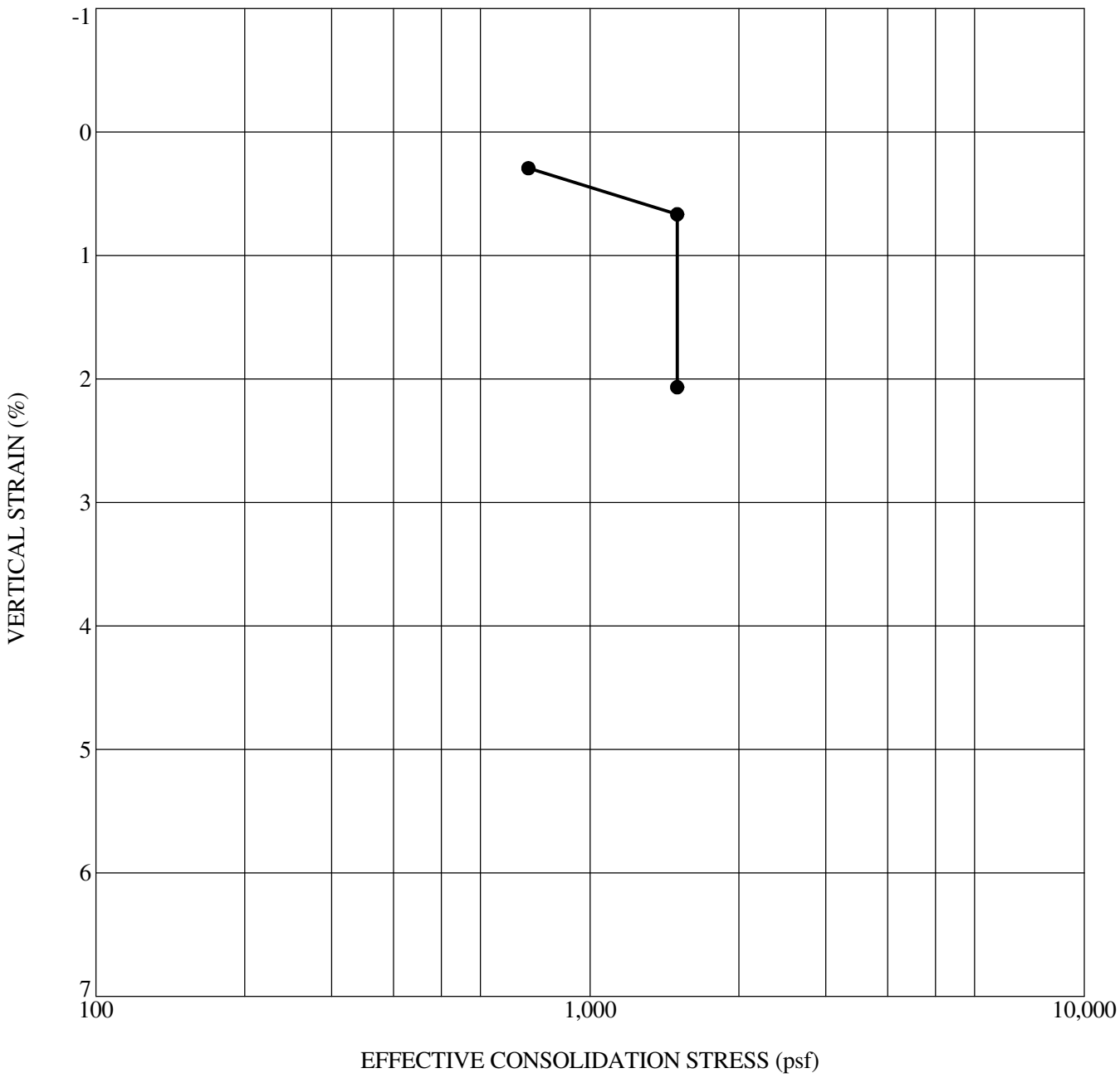
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-19**	**6.0**	**Sandy SILT**	**89**	**8**				**1500**		**1.40**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
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Plate

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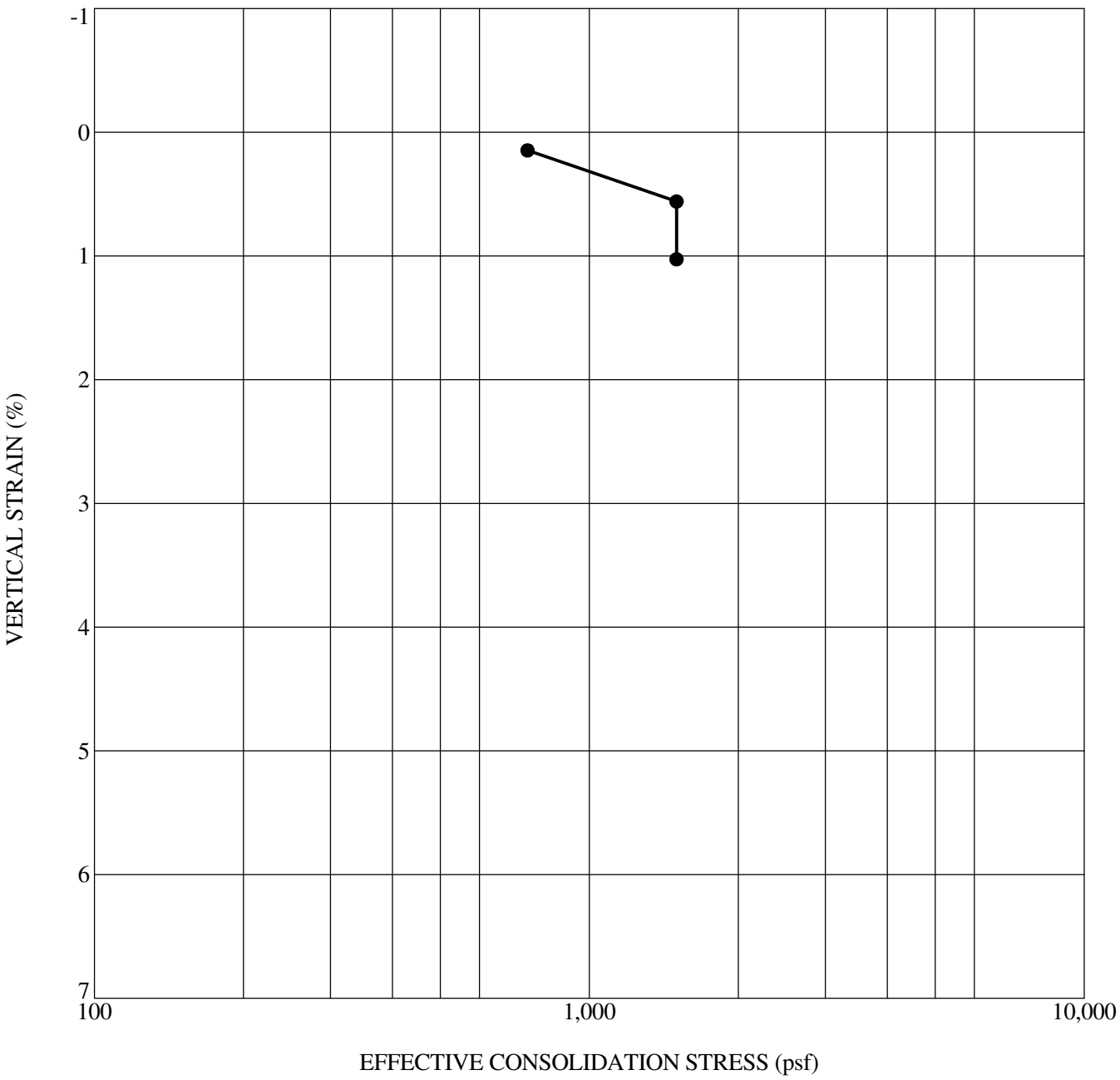
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-28**	**3.5**	**Sandy Silty CLAY**	**107**	**7**				**1500**		**0.47**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
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Project Number: 589-100

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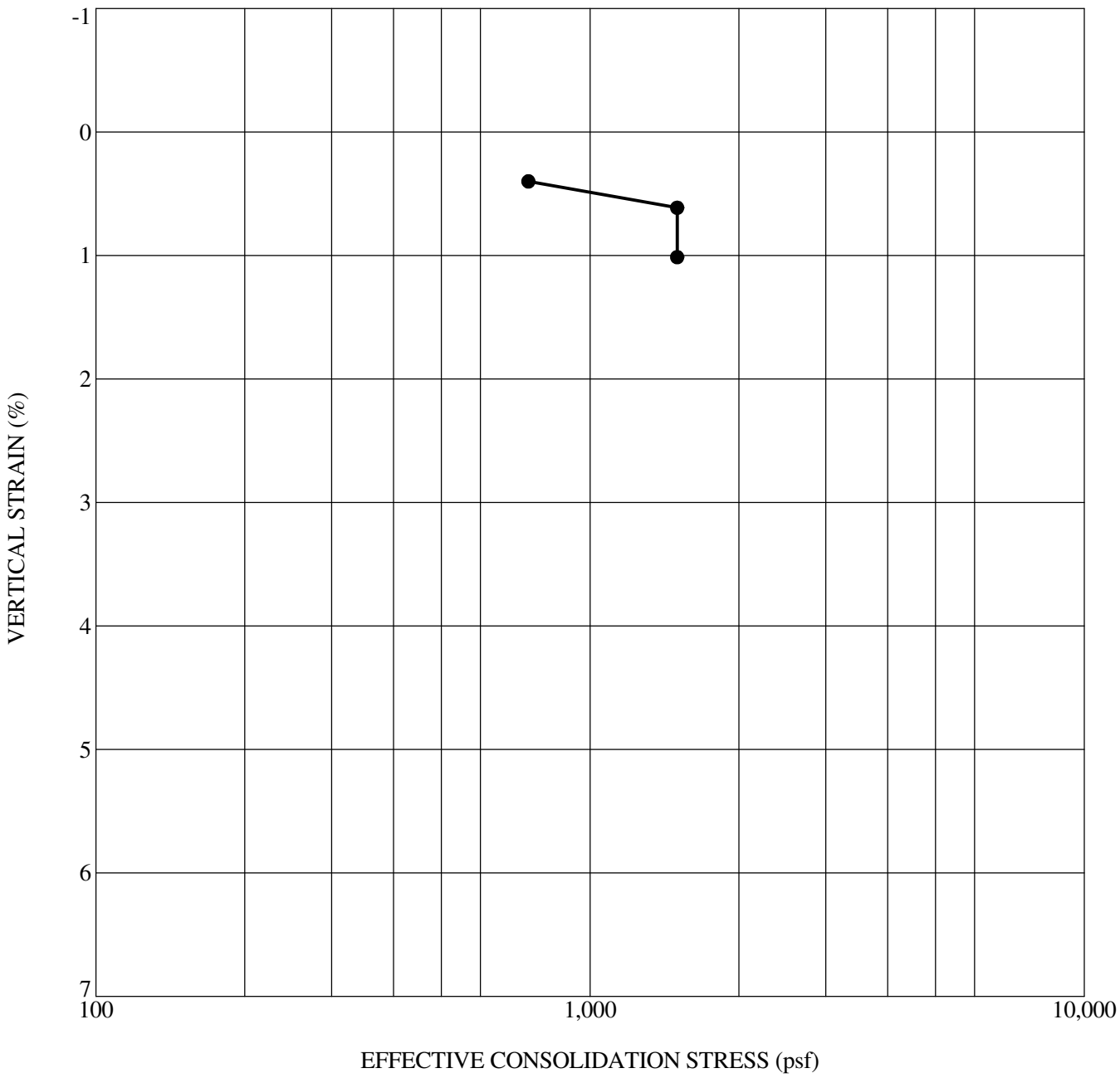
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-30**	**4.0**	**Lean CLAY**	**103**	**24**				**1500**		**0.40**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
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Plate

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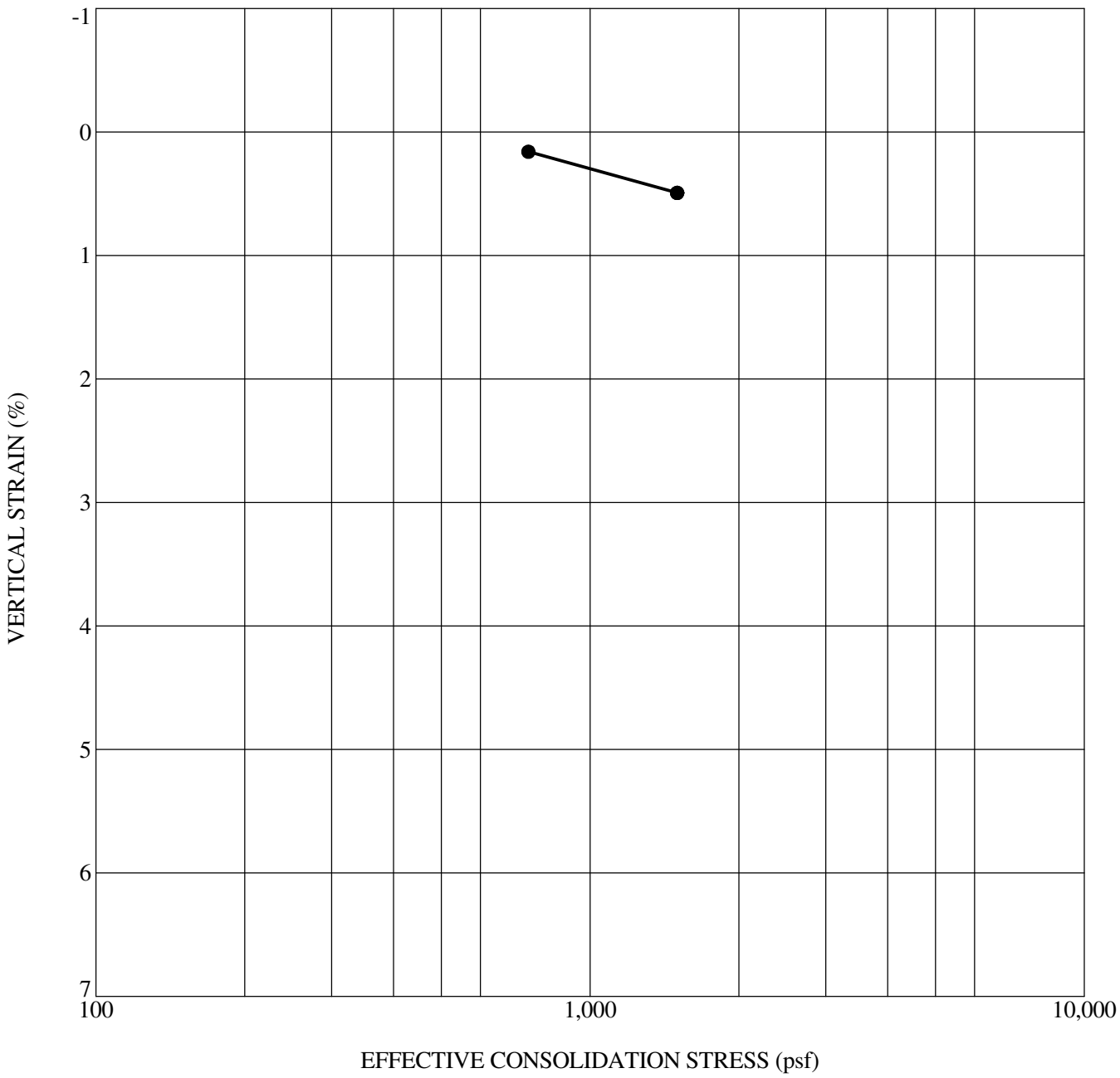

	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-32**	**3.5**	**Lean CLAY**	**99**	**10**				**1500**		**0.01**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
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Plate

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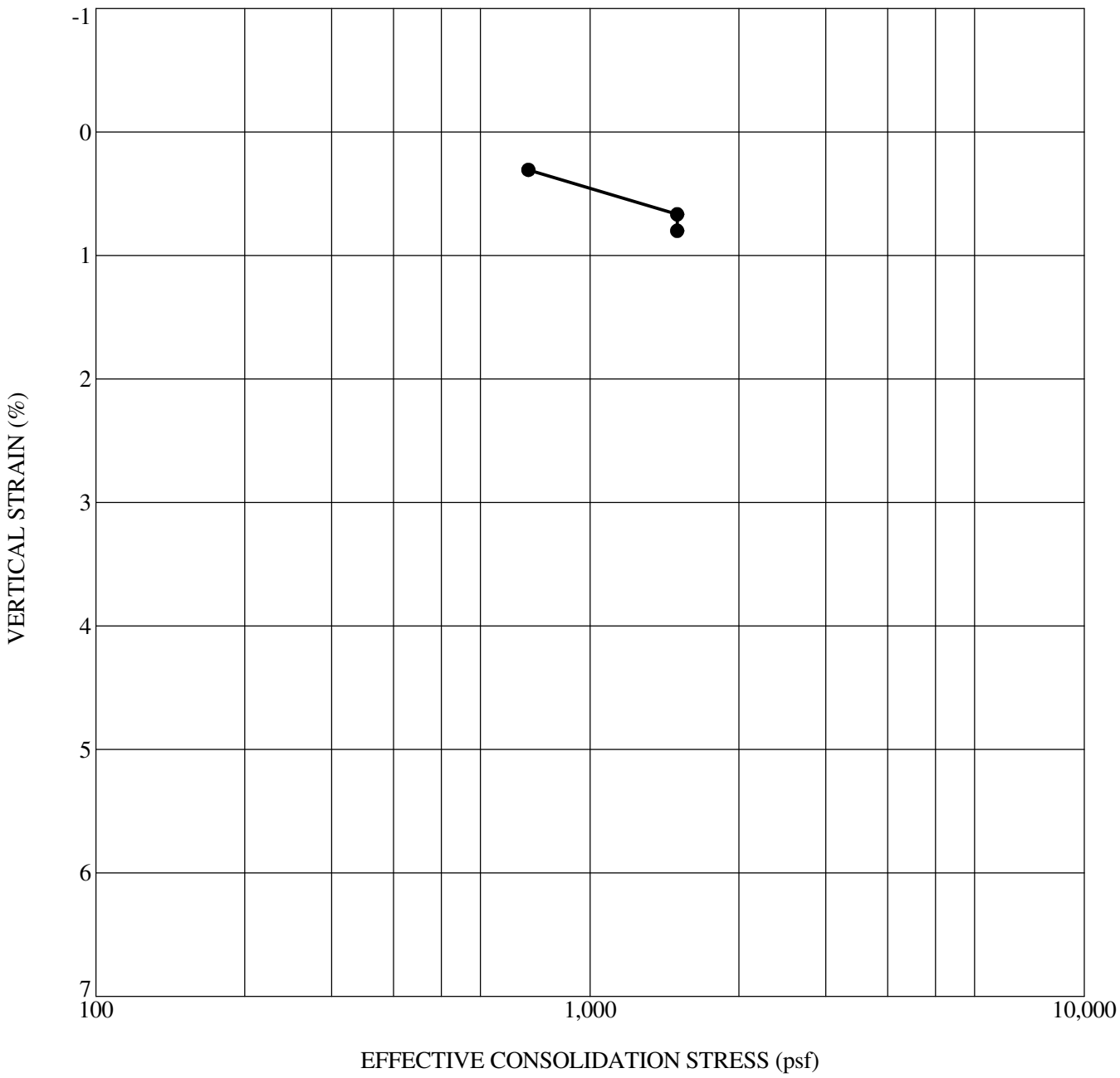
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-33**	**6.0**	**Lean CLAY with sand**	**90**	**11**				**1500**		**0.10**

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1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
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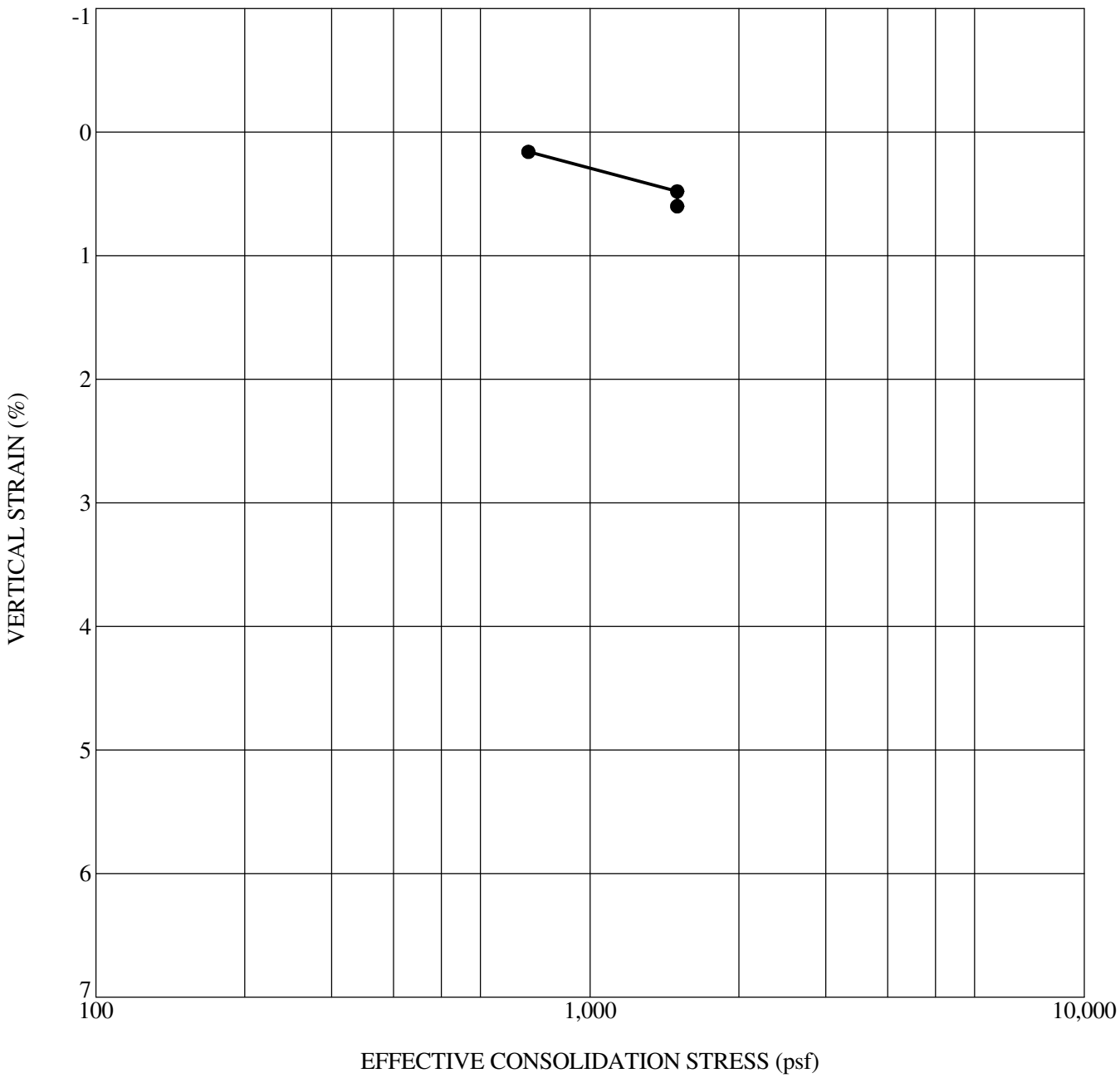
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-35**	**5.0**	**Sandy SILT**	**96**	**11**				**1500**		**0.12**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
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Plate

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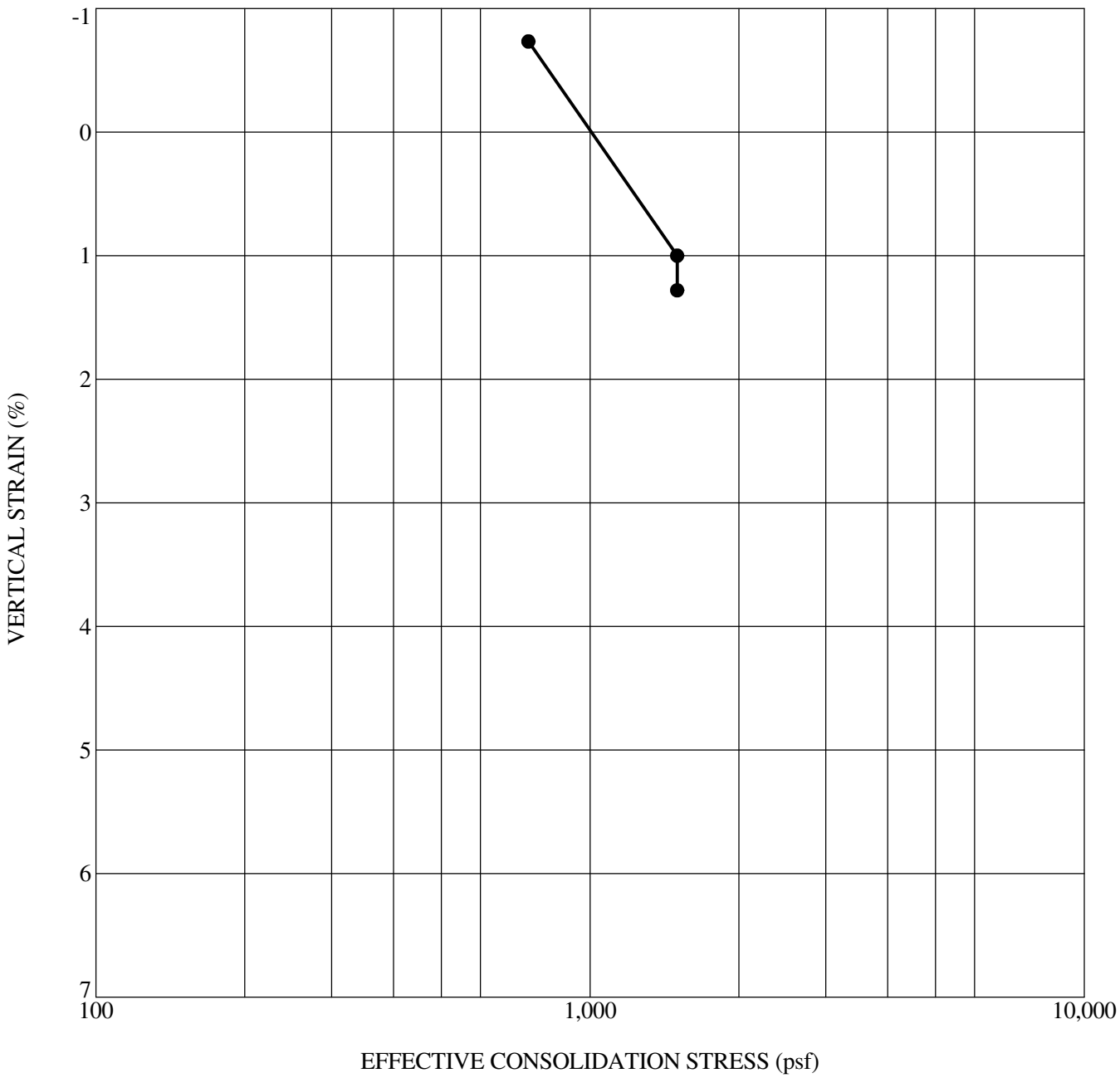
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-39**	**3.5**	**Lean CLAY**	**96**	**8**				**1500**		**0.21**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
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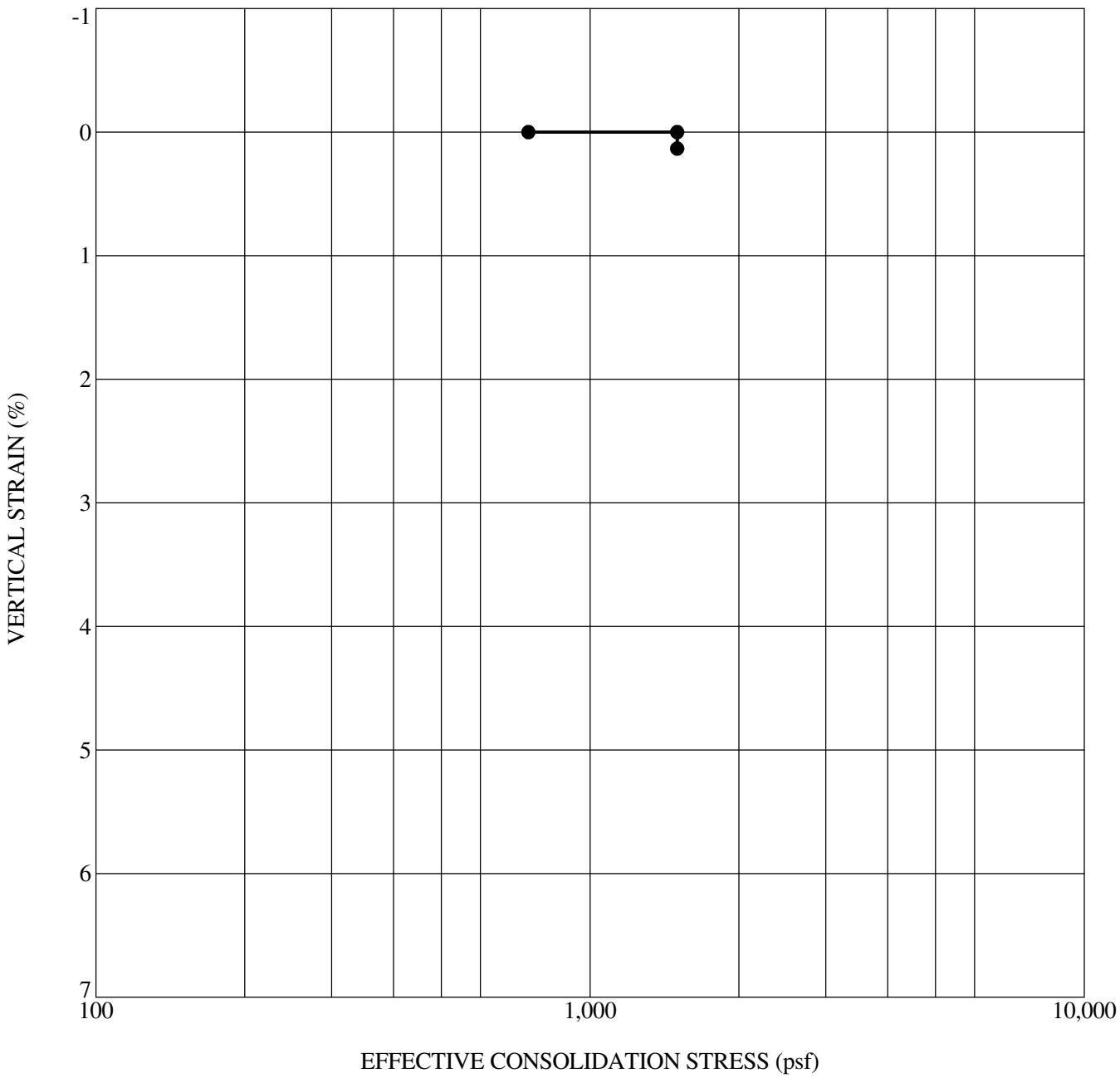

	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-41**	**5.0**	**Sandy Lean CLAY**	**89**	**5**				**1500**		**0.01**

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1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
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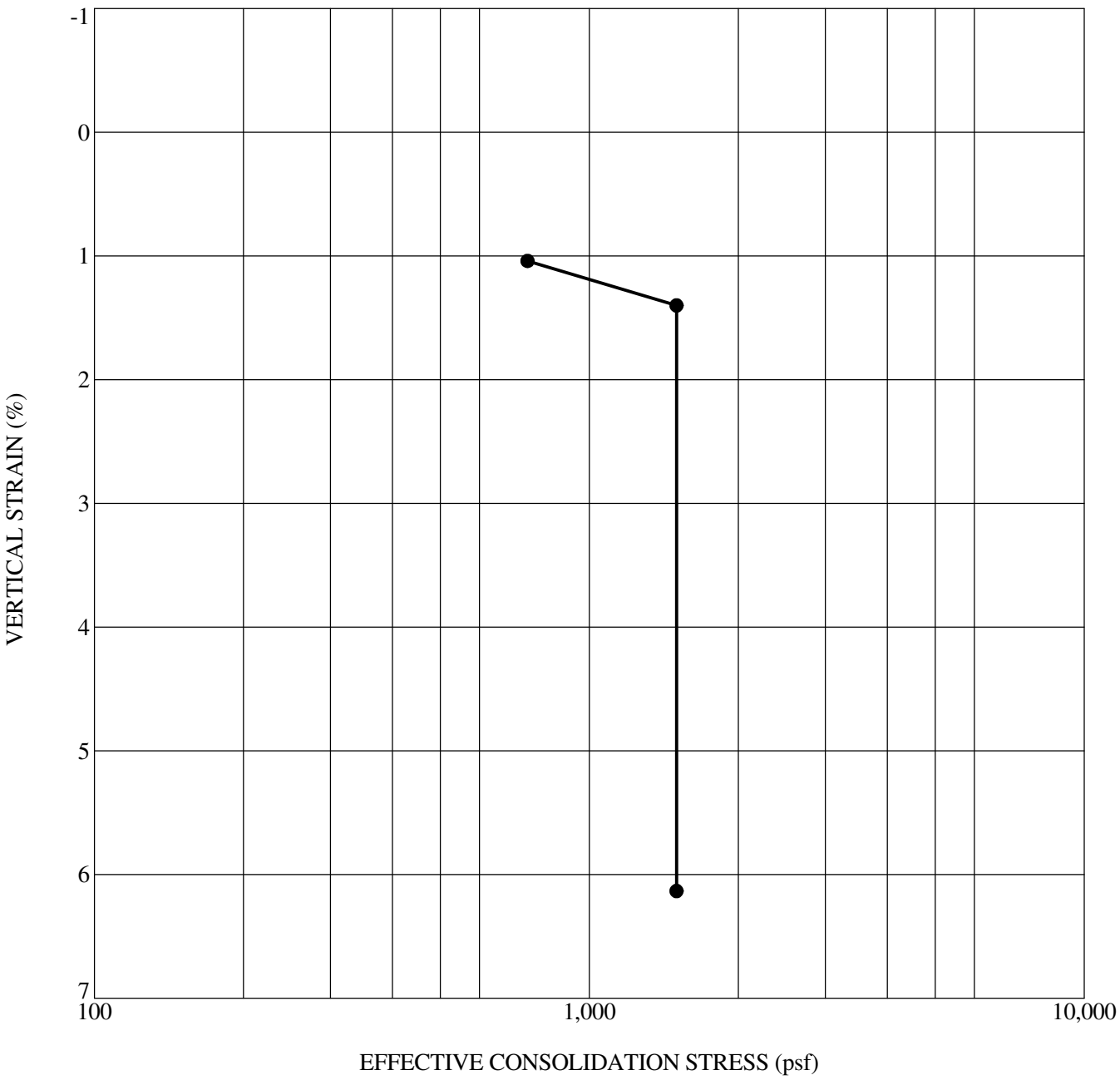
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-43**	**8.0**	**Sandy SILT**	**87**	**7**				**1500**		**3.55**

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1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
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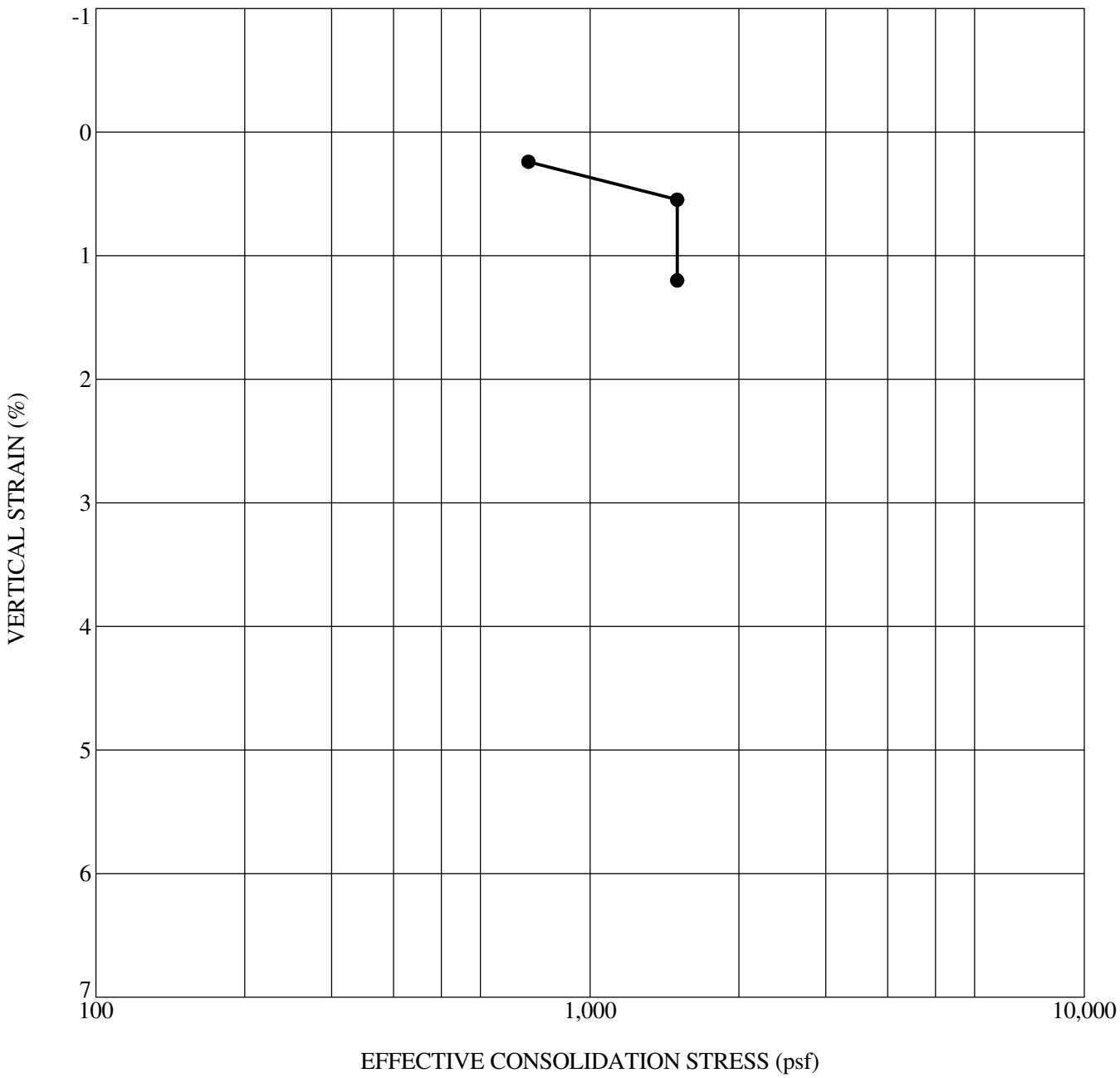
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-47**	**6.0**	**Lean CLAY**	**95**	**9**				**1500**		**0.65**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
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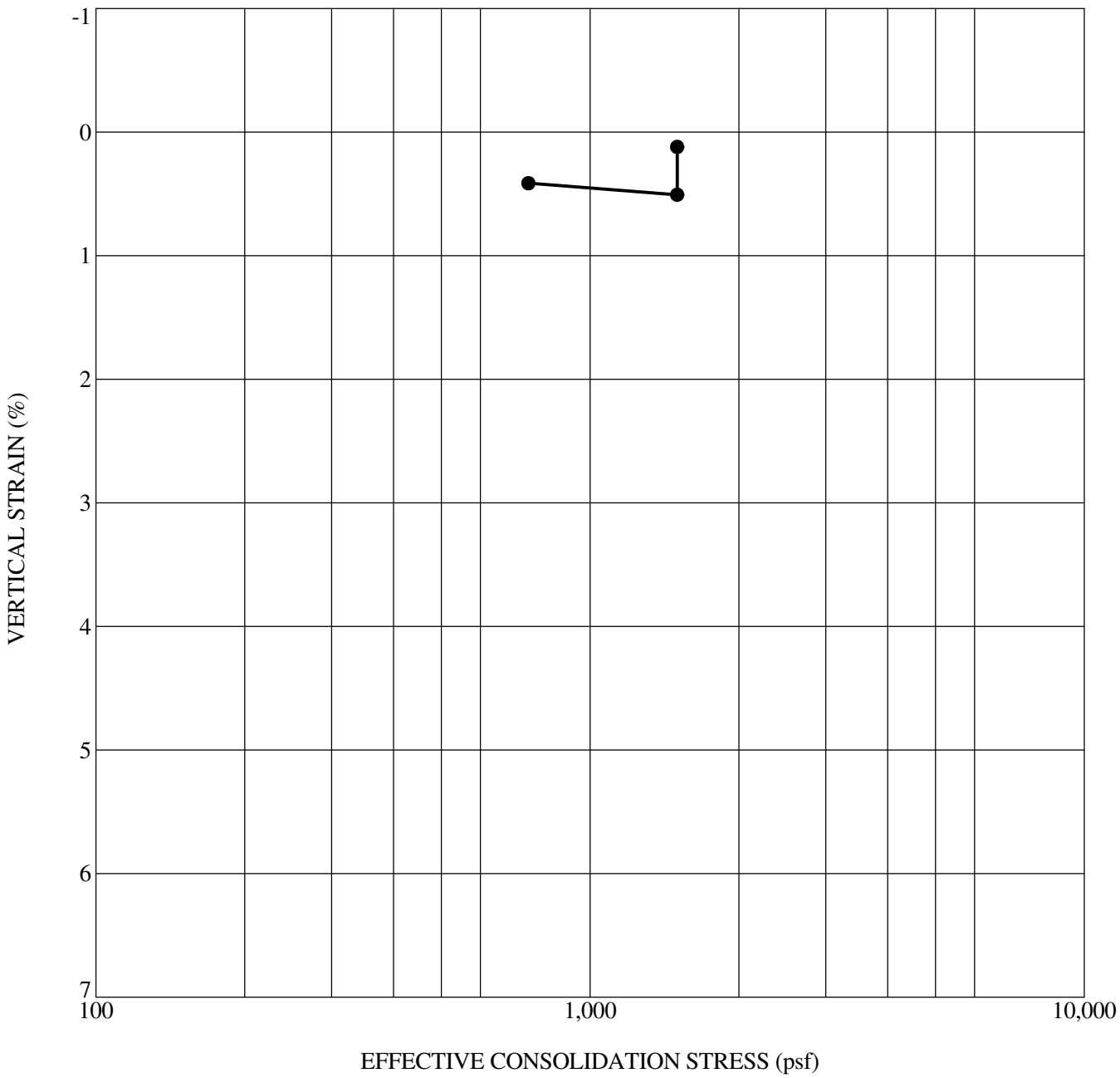
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-49**	**6.0**	**Lean CLAY**	**105**	**16**				**1500**	**0.29**	

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1-D CONSOLIDATION/SWELL/COLLAPSE TEST

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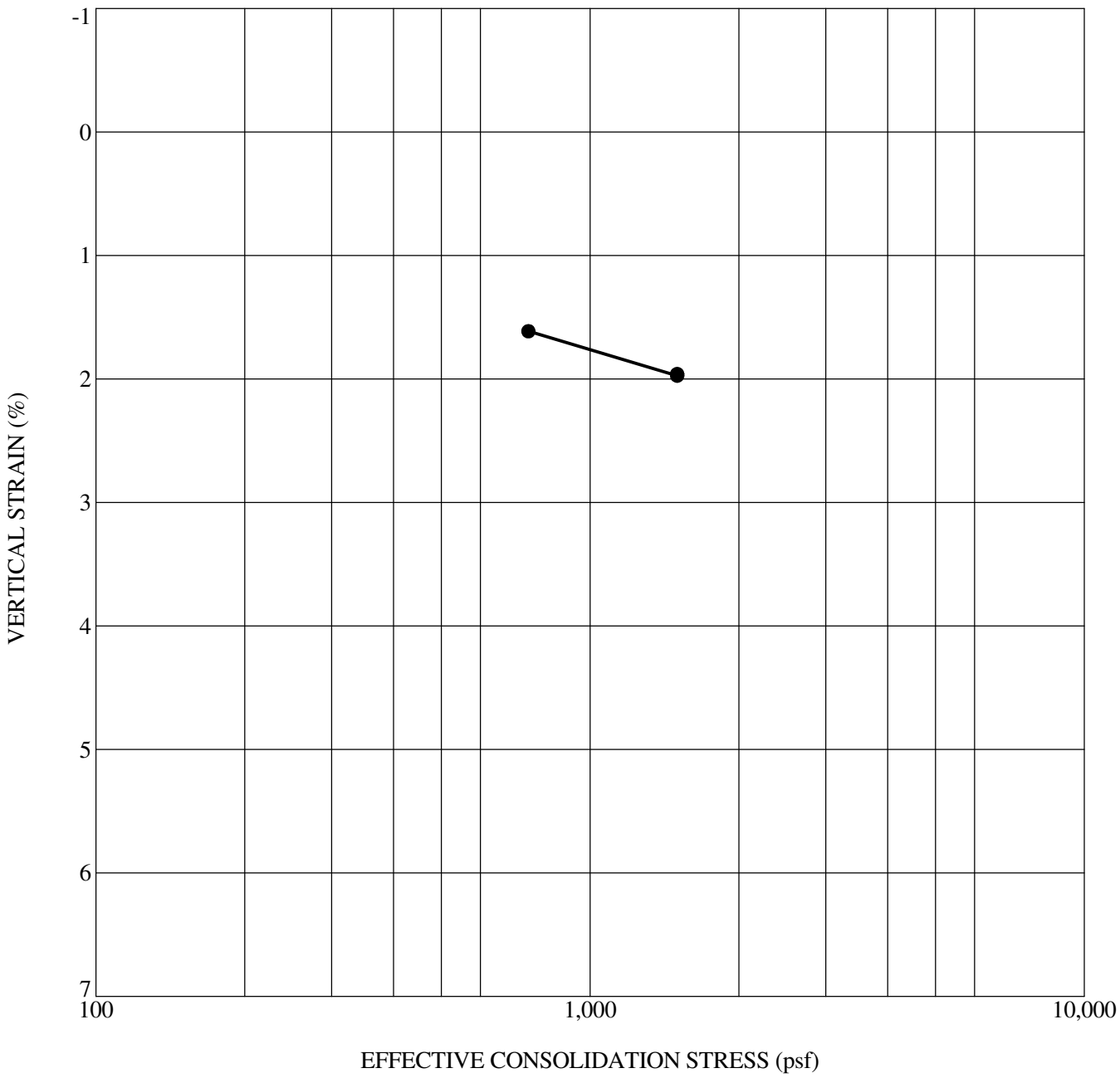
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-52**	**4.0**	**Lean CLAY**	**104**	**15**				**1500**	**0.01**	

GeoStrata

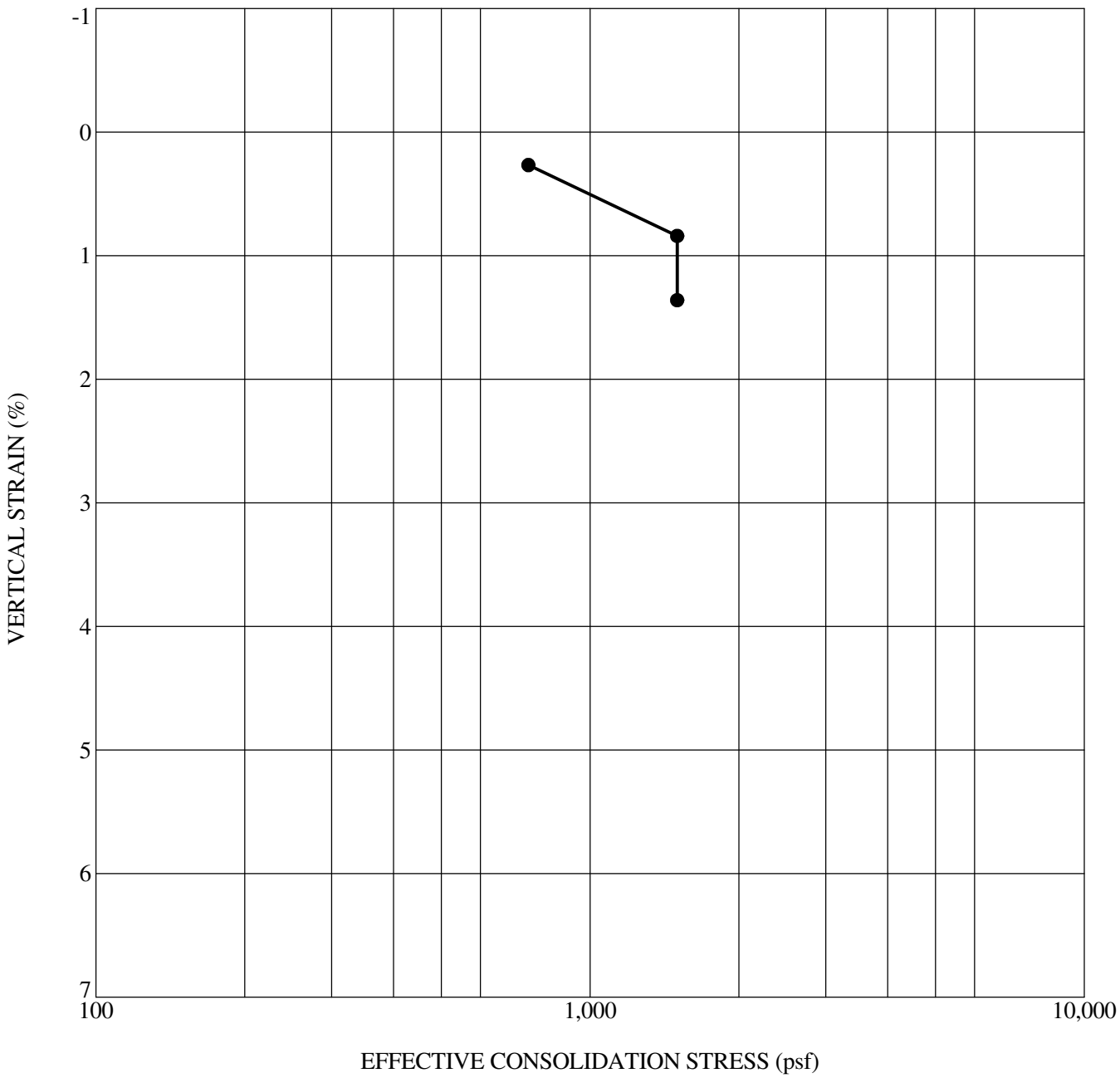
1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 20

C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-54**	**8.0**	**Lean CLAY**	**87**	**14**				**1500**		**0.53**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

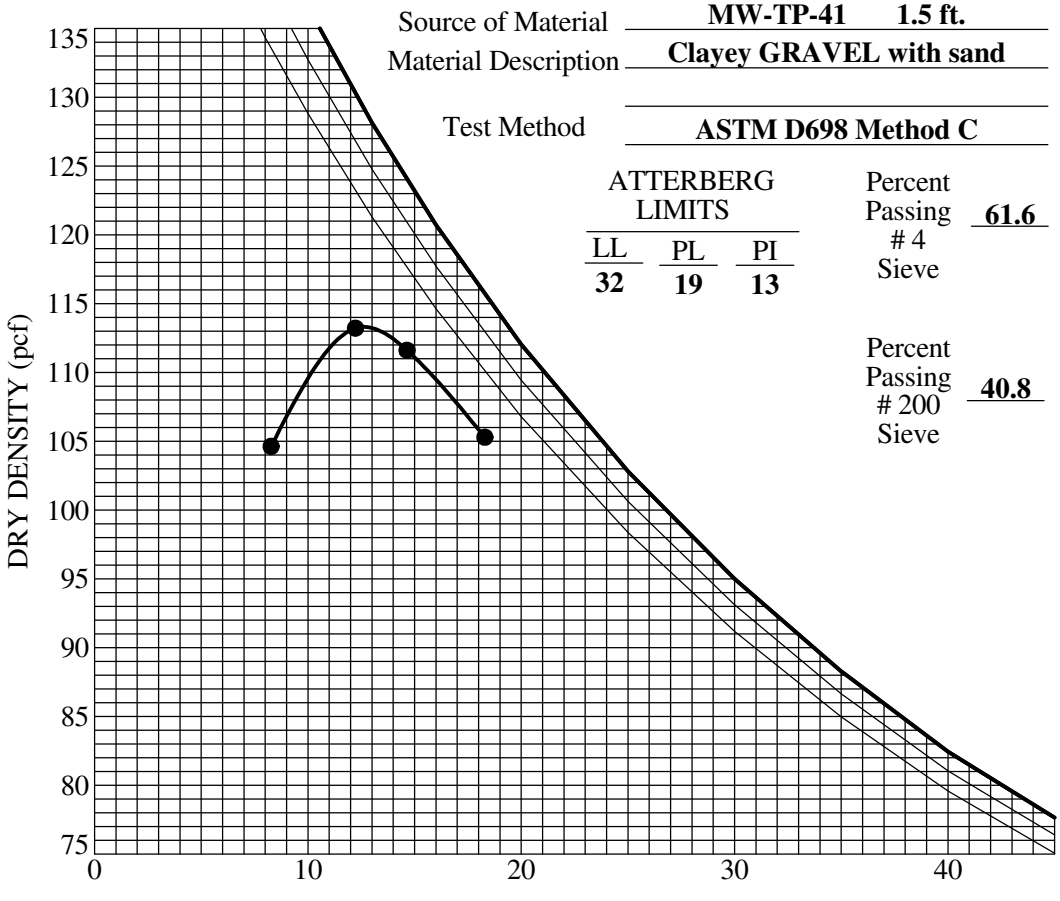
C - 21

Source of Material	MW-TP-41 1.5 ft.
Material Description	Clayey GRAVEL with sand
Test Method	ASTM D698 Method C

ATTERBERG LIMITS		
LL	PL	PI
32	19	13

Percent Passing # 4 Sieve: 61.6

Percent Passing # 200 Sieve: 40.8

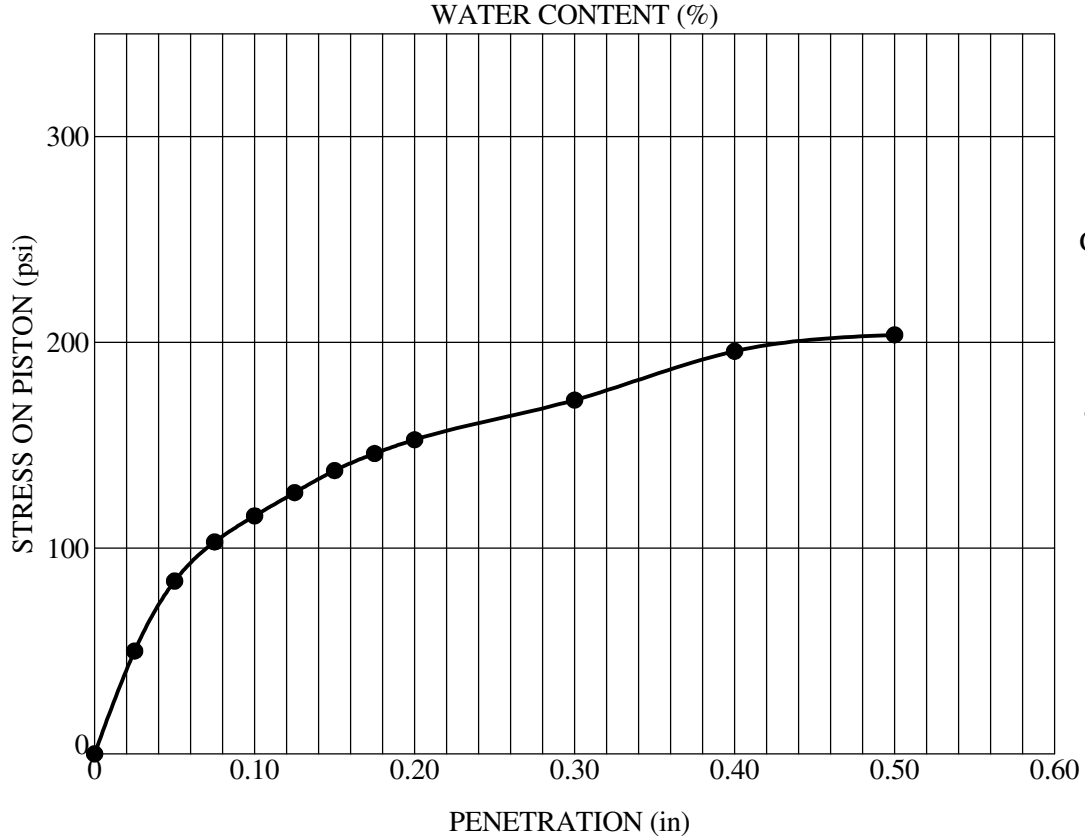


TEST RESULTS

Maximum Dry Density	114.8 (pcf)
Optimum Water Content	12.9 (%)
Percent Rock	19.0 (%)
Corrected Maximum Dry Density	121.1 (pcf)
Corrected Optimum Water Content	10.9 (%)

Curves of 100% Saturation for Specific Gravity Equal to:

2.60, 2.70, 2.80



Dry Density	114.8 (pcf)
Relative Compaction	100 (%)
Surcharge	51 (psf)
% Standard CBR	11.60
Swell	0.81 (%)

GeoStrata

COMPACTION AND CBR TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 22

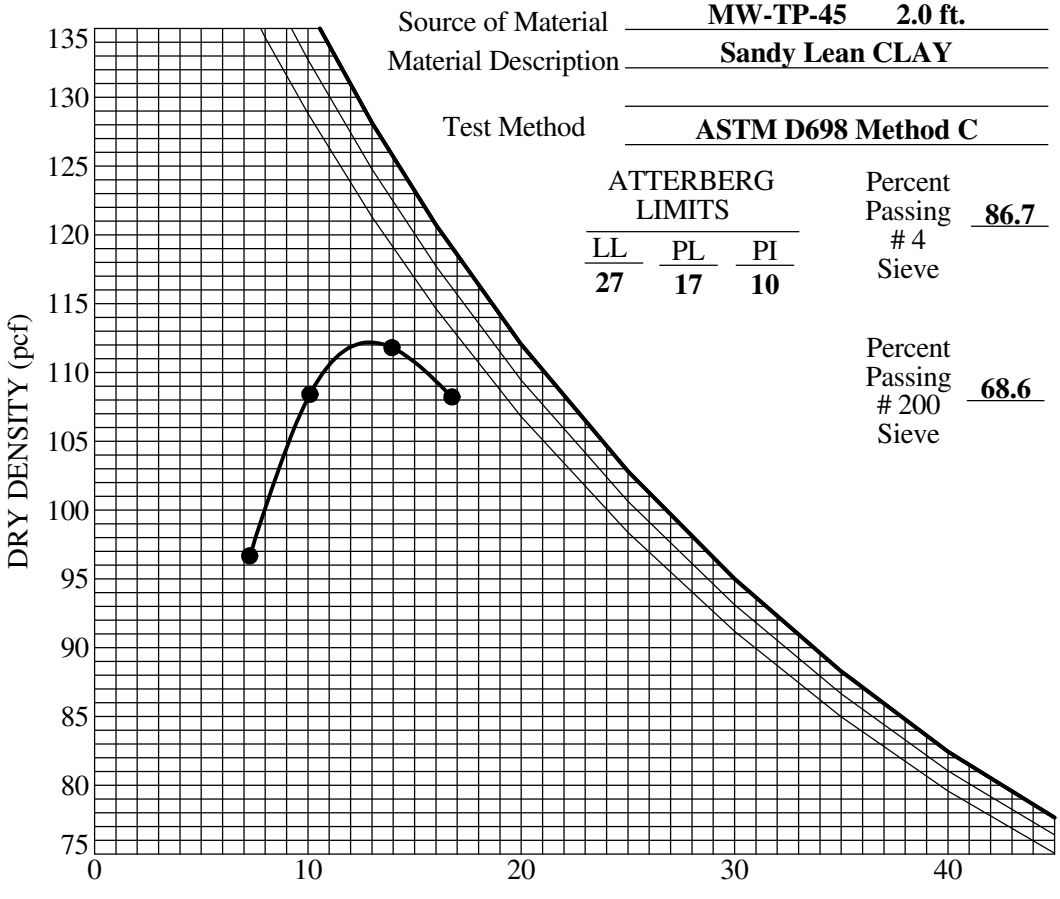
Source of Material	MW-TP-45 2.0 ft.
Material Description	Sandy Lean CLAY
Test Method	ASTM D698 Method C

ATTERBERG LIMITS

LL	PL	PI
27	17	10

Percent Passing # 4 Sieve: 86.7

Percent Passing # 200 Sieve: 68.6

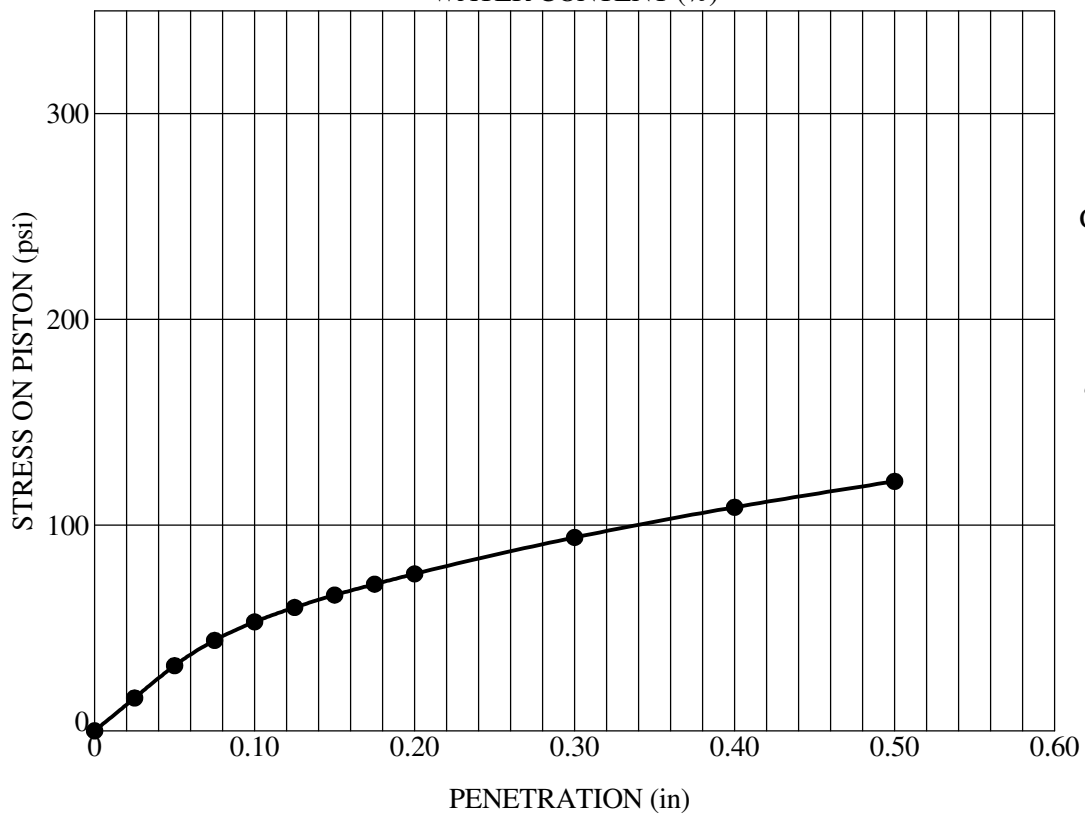


TEST RESULTS

Maximum Dry Density	112.0 (pcf)
Optimum Water Content	11.7 (%)
Percent Rock	(%)
Corrected Maximum Dry Density	(pcf)
Corrected Optimum Water Content	(%)

Curves of 100% Saturation for Specific Gravity Equal to:

2.60, 2.70, 2.80



Dry Density	113.0 (pcf)
Relative Compaction	101 (%)
Surcharge	51 (psf)
% Standard CBR	5.30
Swell	0.52 (%)

GeoStrata

COMPACTION AND CBR TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 23

C_COMPACTION SPLIT 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

APPENDIX D

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals' plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for information purposes only.* To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer's services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration. Confront the risk of moisture infiltration* by including building-envelope or mold specialists on the design team. *Geotechnical engineers are not building-envelope or mold specialists.*

GEOPROFESSIONAL BUSINESS ASSOCIATION

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GeoStrata

Geotechnical Investigation

Micron Property – Lehi Emerald and Single Family

Approximately 500 West and State Road 92
Lehi, Utah

January 18, 2021

Prepared For:

D.R. Horton
Attention: Scott Bishop and Dan Mitchell
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Draper, Utah 84020

GeoStrata Job No. 589-100

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Prepared for:

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Preliminary Geotechnical Investigation
Micron Property Lehi Single Family 145-Acre Portion
Approximately 500 West and State Road 92
Lehi, Utah

GeoStrata Job No. 589-100

Reviewed by:

PROFESSIONAL ENGINEER
1/18/2021
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January 18, 2021

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1.0 EXECUTIVE SUMMARY

This report presents the preliminary findings of a geotechnical investigation conducted for 145-acres of the Micron Property at approximately 500 West and State Road 92, in Lehi and Draper, of Utah County. We understand that this section of the proposed development consists of medium to low density residential development. The development will include different structures, with "low" including single family residences 1 to 2 stories in height with basements (if feasible), and "medium" consisting of townhouse and duplex structures. The development for this section will be constructed across 145 acres. We anticipate footing loads on the order of 2 to 4 kips per lineal foot and column loads of up to 20 kips. The purposes of this investigation were to assess the nature and engineering properties of the subsurface soils at the site and to provide recommendations for general site grading and the design and construction of foundations, slabs-on-grade, and exterior concrete flatwork. The area of this section of the Micron Property contains some geologic hazards that have not been addressed in this report. All recommendations and conclusion in this report are consisted preliminary.

Based on the subsurface conditions encountered at the site, it is our opinion that the subject site is suitable for the proposed development provided that the recommendations contained in this report are incorporated into the design and construction of the project.

As a part of this investigation, subsurface soil conditions were explored by advancing 23 exploratory test pits depths ranging from 8 to 12 feet below the existing site grade. Based on the results of our field observations as well as on our review of applicable surficial geologic maps, the site is overlain partially by approximately ½-foot of topsoil or ½-foot of roadway fill covered a majority of the site. Underlying the topsoil or fill, we encountered deposits mapped by Biek (2005) as consisting of Historical to Oligocene-Eocene-aged materials deposits. Groundwater was not encountered in any of the completed test pits for the section.

Due to the presence of dense granular soils (sands and gravels) and fine-grained soils with low potential for collapsible soil present at the proposed buildings elevations (between 2 to 8 feet below the existing ground surface), strip and spread footings can be placed entirely on non-collapsible undisturbed native soils. If soil at the foundation elevation appears to have a hydro-collapsible nature (pinholes, low natural density, etc.), collapse testing in the laboratory should be performed on a lot-by-lot basis to confirm the that potential collapse will not adversely affect the proposed construction. Foundation elements should not be founded on collapsible soils, and if these soils are encountered, they should be over-excavated according to the results of lot-specific laboratory collapse testing. According to our preliminary soil collapse testing, structural fill depth below footings will be 0 to 12 inches. The site may then be brought back up to design grade using properly placed and compacted structural fill. Strip and spread footings should be a minimum of 20 and 30 inches wide, respectively. Exterior shallow footings and spread footings should be embedded at least 30 inches below final grade for frost protection and confinement. Interior strip shallow footings not susceptible to frost conditions should be embedded at least 18 inches for confinement. Conventional strip and spread footings founded on a native granular soil or on structural fill may be proportioned for a maximum net allowable bearing capacity of **1,800 pounds per square foot (psf)**.

Additional recommendations concerning other aspects of the proposed construction may be found in the body of this report.

IMPORTANT INFORMATION ABOUT THIS GEOTECHNICAL-ENGIEERING REPORT:

Do not rely on the executive summary. The executive summary omits a number of details, any one of which could be crucial. Read and refer to the report in full. Do not rely on this report if this report was prepared for a different client, different project, different purpose, different site, and/or before important events occurred at the site or adjacent to it. All recommendations in this report are confirmation dependent. A two-page document prepared by GBA explains these items with greater detail and can be found in Appendix D (Plates D-1 and D-2).

2.0 INTRODUCTION

2.1 PURPOSE AND SCOPE OF WORK

This report presents the results of a preliminary geotechnical investigation conducted for 145-acres of the property termed the Micron Property located at approximately 500 West and State Road 92 in Lehi and Draper, in Utah County, Utah. The purposes of this investigation were to assess the nature and engineering properties of the subsurface soils at the site and to provide recommendations for general site grading and the design and construction of foundations, slabs-on-grade, and exterior concrete flatwork.

The scope of work completed for this study included a site reconnaissance, subsurface exploration, soil sampling, laboratory testing, engineering analyses, and preparation of this report. Our services were performed in accordance with our proposal and signed authorization, dated November 18, 2020.

The recommendations contained in this report are subject to the limitations presented in the LIMITATIONS section of this report (Section 7.1).

2.2 PROJECT DESCRIPTION

Due to the size of the Micron Property project, we have divided the property into four smaller sections containing similar proposed development types for the purposes of our investigation. This preliminary geotechnical investigation is completed for Lehi Emerald and Lehi Single Family Lots, which represents the northwestern-most 145-acres of the proposed building portions of the development. The property is located at approximately 500 West and State Road 92, in Lehi and Draper, Utah County, Utah (see Plate A-1, *Site Vicinity Map*). Plate A-2, Site Section Map, shows how we have divided up the buildable portions of the Micron property. Based on information received from the Client, we understand that steep and hard to access portions of the Micron Property will not be developed. This 145-acres portion of the Micron Property will be developed with low density (single family residential lots) and medium density (small acre single family lots to townhomes). The resulting construction will include one- to two-story, wood-framed single-family residences founded on conventional spread and strip footings and one- to three-story townhouse structures founded on conventional spread and strip footings. If larger structures are planned, then GeoStrata should be consulted and our recommendations should be updated if necessary. Each of these types of structures are anticipated to have basements or crawlspaces if feasible. We anticipate footing loads on the order of 2 to 4 kips per

lineal foot and column loads of up to 20 kips. As stated before, if the anticipated footing loads exceed assumptions or the proposed construction is different than what we have assumed, please contact GeoStrata with the updated information and allow for further analysis. Our investigation for the development will be used to provide geotechnical design parameters for construction of buildings, parking areas, driveways, and associated landscaping and utilities.

3.0 METHOD OF STUDY

3.1 FIELD INVESTIGATION

As a part of this investigation, subsurface soil conditions were explored by advancing 23 exploratory test pits (MW-TP-01 to MW-TP-05, MW-TP-10 to MW-TP-23, MW-TP-27 to MW-TP-30) to depths ranging from 8 to 12 feet below the existing site grade. It should be noted that the northeastern portion of the subject 145 acres extended into property that is currently part of Draper City, and appropriate permits were not able to be obtained in the timeframe allotted for this investigation. As such, no test pits were excavated in the northeastern portions of the subject property. The approximate locations of the explorations are shown on Plate A-3, *Lehi Emerald Single Family and Single-Family Section Exploration Map,* in Appendix A. Exploration points were placed to provide optimum coverage of the site in the areas of proposed residential development. Logs of the subsurface conditions, as encountered in the test pit explorations, were recorded at the time of excavation and advancement by a staff engineer currently employed at GeoStrata and are presented on Plates B-1 to B-23 in Appendix B. A *Soil Symbols Description Key* used in the borehole and test pit logs is included as Plate B-24.

The test pits were excavated with a mini track mounted excavator. Both bulk and relatively undisturbed soil samples were obtained from the test pits. Relatively undisturbed soil samples were obtained from the test pit in the form of tube samples and block samples. All samples were transported to our laboratory for testing to evaluate engineering properties of the various earth materials observed. The soils were classified according to the *Unified Soil Classification System* (USCS) by the Geotechnical Engineer. Classifications for the individual soil units are shown on the attached Test Pit Logs, Plates B-1 to B-23 in Appendix B.

3.2 LABORATORY INVESTIGATION

Geotechnical laboratory tests were conducted on selected relatively undisturbed and bulk soil samples obtained during our field investigation. The laboratory testing program was designed to evaluate the engineering characteristics of onsite earth materials. Laboratory tests conducted during this investigation include:

- Grain Size Distribution Analysis (ASTM D422)
- Atterberg Limits (ASTM D4318)
- 1-D Collapse Consolidation Test (ASTM D2435)
- California Bearing Ratio Test (ASTM D1883)
- Direct Shear Test (ASTM D3080)

The results of laboratory tests are presented on the Test Pit Logs in Appendix B (Plates B-1 to B-23), the test result plates presented in Appendix C (Plates C-2 to C-19) and in the *Summary of Laboratory Test Results* Table (Plate C-1).

3.3 ENGINEERING ANALYSIS

Engineering analyses were performed using soil data obtained from the laboratory test results and empirical correlations from material density, depositional characteristics and classification. Appropriate factors of safety were applied to the results consistent with industry standards and the accepted standard of care.

4.0 GENERALIZED SITE CONDITIONS

4.1 SURFACE CONDITIONS

At the time of our subsurface investigation in this 145-acre portion of the Micron Property, no structures existed on the site, although the remains of an abandoned batch plant used during the construction of the Micron facility was observed on the northern boundary of the property. The only other site improvements consisted of dirt roadways and fences constructed across the site. The site slopes towards the south (towards Utah Lake), having a maximum topographic relief of approximately 180 feet. The residential development known as Canyon View borders this property on the west. The remainder of surrounding properties consisted of undeveloped hillside properties.

4.2 SUBSURFACE CONDITIONS

As previously mentioned, the subsurface soil conditions were explored at the subject property by advancing 23 exploratory test pits to depths ranging from 8 to 12 feet below the existing site grade. Subsurface soil conditions were logged using the United Soils Classification System (USCS) at the time of the investigation and are included on the Test Pit Logs in Appendix B (Plates B-1 through B-23). The soil and moisture conditions encountered during our investigation are discussed below.

4.2.1 Soils

Based on the results of our field observations as well as on our review of applicable surficial geologic maps, the site is largely overlain by approximately ½ foot of topsoil or ½ foot of roadbase fill. Underlying the topsoil or fill, we encountered deposits mapped by Biek (2005) as consisting of a variety of soil deposits ranging from Historical to Oligocene-Eocene in age. Descriptions of the soil units shown in the area are described below;

Qlsb - Lacustrine sand and silt (Upper Pleistocene) − Fine- to coarse-grained lacustrine sand and silt with minor gravel; typically thick bedded and well sorted. This geologic soil unit was encountered in MW-TP-11, 13, 14, 20, and 21. The soils were visual classified as consisting of Silty SAND (SM) with varying amounts of clay and gravel.

Qlgb - Lacustrine gravel and sand (Upper Pleistocene) − Moderately to well-sorted, moderately to well-rounded, clast-supported, pebble to cobble gravel and pebbly sand; thin to thick bedded.

This geologic soil unit was encountered in MW-TP-12. The soils encountered were visually classified as Sandy SILT (ML) with gravel.

Qaf_1 - Modern alluvial-fan deposits (Holocene) − Poorly to moderately sorted, non-stratified, clay- to boulder-size sediment deposited principally by debris flows at the mouths of active drainages. This geologic soil unit was encountered in MW-TP-01 and 10. The soil encountered were visually classified as Silty SAND (SM) with varying amounts of gravel.

Qafy - Younger undifferentiated alluvial-fan deposits (Holocene to Upper Pleistocene) − Poorly to moderately sorted, non-stratified, clay- to boulder-size sediment deposited principally by debris flows at the mouths of active drainages, are locally deeply incised; thickness unknown, but likely up to several tens of feet. This geologic soil unit was encountered in MW-TP-15, 16, 22, and 23. The soil encountered general consisted of a Silty SAND (SM) with varying amounts of gravel.

Qfl - Landfill deposits (Historical) − Miscellaneous fill, principally building and road construction debris, placed in sand and gravel or aggregate pits. This geologic soil unit is mapped at MW-TP-02, although the soils at this test pit location appeared to be native. The area around the location had been disturbed due to past excavation and site use.

Qfd - Disturbed land (Historical) – Land disturbed by sand and gravel operations. These deposits were not encountered in our test pit for this section

Tv - Volcanic rocks of the east Traverse Mountains, undivided (Oligocene-Eocene) − Complexly interbedded block and ash-flow tuffs, volcanic mudflow breccia, minor lava flows, and minor fluvial volcaniclastic deposits. No test pits were completed in the geologic unit.

Taf - Alluvial-fan deposits (Miocene[?] to Oligocene[?]) – Unconsolidated, pebble- to boulder-size, subangular to subrounded orthoquartzite and calcareous sandstone clasts. This geologic soil unit was encountered in MW-TP-04 and 05. The soils were visual classified as Silty SAND with gravel (SM).

The stratification lines shown on the enclosed test pit represent the approximate boundary between soil types USCS classifications of the soils (Plates B-1 to B-23). The actual in-situ transition may be gradual. Due to the nature and depositional characteristics of the native soils,

care should be taken in interpolating subsurface conditions between and beyond the exploration locations.

4.2.2 Groundwater

Groundwater was not encountered in any of the 23 test pits completed for this portion of the Micron Property. Seasonal fluctuations in precipitation, surface runoff from adjacent properties, or other on or offsite sources may increase moisture conditions. The observed groundwater conditions can change seasonally depending on the time of year and will impact the proposed construction. It is recommended that lowest floor slab elevation for each structure should be maintained a minimum of 3 feet above any observed groundwater conditions.

4.2.3 Collapsible Soils

Collapse (often referred to as "hydro-collapse") is a phenomena whereby undisturbed soils exhibit volumetric strain and consolidation upon wetting under increased loading conditions. Collapsible soils can cause differential settling of structures and roadways. Collapsible soils do not necessarily preclude development and can be mitigated by over-excavating porous, potentially collapsible soils and replacing with engineered fill and by controlling surface drainage and runoff. For some structures that are particularly sensitive to differential settlement, or in areas where collapsible soils are identified at great depth, a deep foundation system should be considered.

Soils that have a potential to collapse under increased loading and moisture conditions are typically characterized by a pinhole structure and relatively low unit weights. In general, potentially collapsible soils are observed in fine-grained soils that include clay and silt, although collapsible soils may include sandy soils. Test results of the collapse test show negligible to low collapse potential. A table of the collapse test results, depth, and test pit number are provided below. This information is also contained on Plate C-1 and Plates C-7 to C-16.

Test Pit Number	Sample Depth	Collapse Potential
MW-TP-03	3.0	0.32
MW-TP-12	6.0	1.17
MW-TP-13	8.5	0.27
MW-TP-14	6.0	0.09
MW-TP-18	3.0	0.07
MW-TP-19	6	1.40

MW-TP-20	3.5	0.44
MW-TP-21	3.5	0.23
MW-TP-28	3.5	0.47

Based on these lab test results, it is anticipated that between 0 to 12 inches of structural fill may be required under some of the structures that extend into fine-grained soils with a pinhole texture. The 0 to 12 inches of structural fill under the footings is recommended to reduce the potential for collapsible soils to present a significant risk to the foundation elements within the proposed development. In addition to the structural fill soils, all other recommendations presented in this report should be incorporated into the design and construction of the structures.

5.0 GEOLOGIC CONDITIONS

5.1 GEOLOGIC SETTING

The site is located at an elevation between 4,995 and 5,165 feet above mean sea level within the northern portion of Utah Valley. The Utah Valley is a deep, sediment-filled structural basin of Cenozoic age flanked by the Wasatch Range to the east and the Lake Mountains, East Tintic Mountains, and the West Hills to the West (Hintze, 1980). The Wasatch Range is the easternmost expression of pronounced Basin and Range extension in north-central Utah.

The near-surface geology of Utah Valley is dominated by sediments deposited within the last 30,000 years by Lake Bonneville (Scott and others, 1983). As the lake receded, streams began to incise large deltas formed at the mouths of major canyons along the Wasatch Range, and the eroded material was deposited in shallow lakes and marshes in the basin and in a series of recessional deltas and alluvial fans. Sediments toward the center of the valleys are predominately deep-water deposits of clay, silt and fine sand. However, these deep-water deposits are in places covered by a thin post-Bonneville alluvial cover. Surface soil units as mapped by Biek (2005) consisted of Historical to Oligocene-Eocene-aged materials deposits. Based on the soil and groundwater conditions encountered during our investigation, it is considered likely that each of our test pits were terminated in one of the mapped deposits.

5.2 FAULTING AND SEISMICITY

The site lies within the north-south trending belt of seismicity known as the Intermountain Seismic Belt (ISB) (Hecker, 1993). The ISB extends from northwestern Montana through southwestern Utah. An active fault is defined as a fault that has had activity within the Holocene (<11ka). Based on information provided by Geologic Hazards on the Utah Geologic Hazard Portal, faults associated with the Wasatch Fault Zone (WFZ) are present to the north and east of the subject property (see Plate A-5, *Fault and Fault Special Study Area Map*). As a result, the northeastern portion of the subject 145-acre development are identified as being located within a surficial faulting special study area. As discussed previously, this portion of the property are located within Draper City limits, and as such no explorations were completed within this area. It is possible that a series of fault investigations including trenches across the proposed building pads may be required prior to development within the area identified on Plate A-5. However, when considering the most recently published geologic maps containing the subject site, no active faults are mapped through or immediately adjacent to the site (Black and others, 2003, and Constenius, et al., 2011). The 145-acre portion of Micron Property is located approximately 5

miles east of the northern strand of the Provo section of the Wasatch Fault Zone. The Provo section is one of the longest sections of the Wasatch Fault Zone (Hecker, 1993) and is estimated to be approximately 43 miles long with a reported rupture length of 37 miles and a maximum potential to produce earthquakes up to magnitude (M_s) 7.5 to 7.7 (Black and others, 2003). The 145-acre portion of Micron Property is also located approximately 6 miles north of the mapped Utah Lake Faults and Folds (ULFF). The ULFF consists of several northeast to northwest trending faults and folds located beneath Utah Lake and are reported to have been active in the past 15 ka (Black et al, 2003). However, since the ULFF is at the bottom of a large lake these faults are poorly understood – as such, the USGS does not include ULFF in their fault database for seismic hazard analysis. Analysis of the ground shaking hazard along the Wasatch Front suggests that the Wasatch Fault Zone is the single greatest contributor to the seismic hazard in the Salt Lake City region. Each of the faults listed above show evidence of Holocene-aged movement and is therefore considered active.

Spectral responses for the Risk-Targeted Maximum Considered Earthquake (MCE_R) are shown in the table below. These values generally correspond to a one percent probability of structure collapse in 50 years for a "firm rock" site. To account for site effects, site coefficients which vary with the magnitude of spectral acceleration are used. Based on our field exploration to 12 feet and our geologic review of the site, it is our opinion that this location is best described as a Site Class C. The spectral accelerations are calculated based on the site's approximate latitude and longitude of 40.442° and -111.850˚ respectively and the Seismic Design Maps web-based application at https://seismicmaps.org/.

Description	Value
Site Class	C
S_s - MCE_R ground motion (period – 0.2s)	1.349
S_1 - MCE_R ground motion (period – 1.0s)	0.494
F_a - Site amplification factor at 1.0s	1.200
F_v - Site amplification factor at 1.0s	1.500
PGA - MCE_G peak ground acceleration	0.602
PGA_M – Site modified peak ground acceleration	0.729

It should be noted that our investigation did not include a site-specific ground motion hazard analysis and a Site Class C has been used to determine the seismic parameters presented above based on maximum depths explored of 12 feet and our geologic review. The seismic parameters

presented herein may be used for design of the proposed structures provided that structural design allows for the ground motion hazard analysis exception in ASCE 7-16 Section 11.4.8. Alternatively, GeoStrata may be contacted to complete a ground motion hazard analysis in accordance with ASCE 7-16 Chapter 21.

5.3 LIQUEFACTION

Certain areas within the intermountain region possess a potential for liquefaction during seismic events. Liquefaction is a phenomenon whereby loose, saturated, granular soil deposits lose a significant portion of their shear strength due to excess pore water pressure buildup resulting from dynamic loading, such as that caused by an earthquake. Among other effects, liquefaction can result in densification of such deposits causing settlements of overlying layers after an earthquake as excess pore water pressures are dissipated. The primary factors affecting liquefaction potential of a soil deposit are: (1) level and duration of seismic ground motions; (2) soil type and consistency; and (3) depth to groundwater.

Based on our review of the *Liquefaction-Special Study Areas, Wastach Front and nearby Area, Utah*, this portion of the Micron Property is located in an area currently designated as having a "Very Low to Low" liquefaction potential. "Low" liquefaction potential indicates that there is between a 5% to 10% probability of having an earthquake within a 100-year period that will be strong enough to cause liquefaction. "Very Low" liquefaction potential indicates that there is less than 5% probability of having an earthquake within a 100-year period that will be strong enough to cause liquefaction.

The near-surface soils observed within our test pits consisted of unsaturated soils. Groundwater was not observed in the test pits. A liquefaction analysis was beyond the scope of the project; however, if the owner or client wishes to have greater understanding of the liquefaction potential of the soils at greater depths, a liquefaction analysis should be completed at the site.

5.4 OTHER GEOLOGIC HAZARDS

According to the latest update to the Geologic Hazards on Utah Geologic Hazard Portal, a portion of the 145-acre portion of Micron property is located in special study areas for debris flows and slope stability. Maps of these hazard are included on Plates A-6 to A-7. Recommendations for development in these mapped hazards special study areas, should be address in geologic hazard report or reports. The results of these reports and findings may limit the development, or require mitigation prior to the development of the site.

6.0 ENGINEERING ANALYSIS AND RECOMMENDATIONS

6.1 GENERAL CONCLUSIONS

Based on the subsurface conditions encountered at the site, it is our opinion that the subject site is suitable for the proposed construction provided that the recommendations contained in this report are complied with. This conclusion should be understood as preliminary, and the results of geologic hazard analysis could designate some portions of this development as hazardous or unbuildable.

The recommendations presented in this report are based on our understanding of the proposed project, the subsurface conditions observed during field exploration, the results of laboratory testing, and our engineering analyses. If subsurface conditions other than those described herein are encountered in conjunction with construction, and/or if design and layout changes are initiated, we must be informed so that the recommendations herein can be reviewed and revised as changes or conditions may require.

Based on our observations, the subject site is overlain by ½-foot of topsoil or ½-foot of roadway fill soils. Increased depth of topsoil may be encountered in the drainages or within the alluvial fan deposits. These soils would need to be over-excavated in all areas underlying footing elements, pavements and any other areas which would underlie structural elements of the new development.

As additional layers of undocumented fill soils may exist existing, particularly in the footprint of the existing roadways or batching plant. The owner and contractor should be aware that the possibility exists that thicker sections of undocumented fill than those reported in our test pits may exist.

6.2 EARTHWORK

Prior to the placement of foundations, general site grading is recommended to provide proper support for foundations, exterior concrete flatwork, concrete slabs-on-grade, and pavement sections. Site grading is also recommended to provide proper drainage and moisture control on the subject property and to aid in preventing differential movement in foundation soils as a result of variations in moisture conditions.

6.2.1 General Site Preparation and Grading

In areas beneath footings and concrete flat work, the highly organic topsoil (top 3 to 6 inches) should be stripped and stockpiled for use in landscape areas or disposal. Debris, vegetation, undocumented fill, roots, loose, soft or other deleterious materials should also be removed. If over-excavation is required, the excavation should extend a minimum of one foot laterally for every foot of depth of over-excavation. The exposed subgrade should be proof-rolled with heavy equipment to identify loose, soft or otherwise disturbed soils. If soft soils are observed, they should be stabilized in accordance with our recommendations in the Soft Soil Stabilization Section (Section 6.2.4); if loose soils are observed, they should be compacted as recommended in Section 6.2.5.

A GeoStrata representative should observe the site preparation and grading operations to assess that the recommendations presented in this report are complied with.

6.2.2 Demolition

Although no structures were observed during our field investigation, the possibility exists that isolated structures may be present at the subject property, particularly in the area of previously existing batch plant. If encountered, demolition of any on-site structures is required prior to subsequent construction. We recommend complete removal of all foundations of any existing structures until native soils are exposed. All debris produced from demolition should be removed from the site to an approved construction and demolition landfill. Loose soils and additional undocumented fill can be created from demolition of existing structures. These loose and deleterious materials should be over-excavated. The upper 12 inches of native soils should be scarified and compacted to 95% of maximum dry density according to ASTM D1557 prior to proceeding with construction.

6.2.3 Excavation Stability

Based on Occupational Safety and Health Administration (OSHA) guidelines for excavation safety, trenches with vertical walls up to 5 feet in depth may be occupied, however, the presence of fill soils, loose soils, or wet soils may require that the walls be flattened to maintain safe working conditions. When the trench is deeper than 5 feet, we recommend a trench-shield or shoring be used as a protective system to workers in the trench. Based on our soil observations, laboratory testing, and OSHA guidelines, native soils at the site classify as Type C soils. Deeper excavations, if required, should be constructed with side slopes no steeper than one and one- and one-half horizontal to one vertical (1.5H:1V). Wet conditions should be anticipated side slopes

will likely need to be further flattened to maintain slope stability. Alternatively, shoring or trench boxes may be used to improve safe work conditions in trenches. The contractor is ultimately responsible for trench and site safety. Pertinent OSHA requirements should be met to provide a safe work environment. If site specific conditions arise that require engineering analysis in accordance with OSHA regulations, GeoStrata can respond and provide recommendations as needed.

We recommend that a GeoStrata representative be on-site during all excavations to assess the exposed soils in trench walls.

6.2.4 Soft Soil Stabilization

Based on observations during our field investigation, if near-surface soils become saturated soft or pumping soils may be exposed in excavations at the site. Once exposed, all subgrade surfaces beneath proposed structure, pavements, and flat work concrete should be proof rolled with heavy wheeled-construction equipment. If soft or pumping soils are encountered, these soils should be stabilized prior to construction of footings. Stabilization of the subgrade soils can be accomplished using a clean, coarse angular material worked into the soft subgrade. We recommend the material be greater than 2-inch diameter, but less than 6 inches. A locally available pit-run gravel may be suitable but should contain a high percentage of particles larger than 2 inches and have less than 7 percent fines (material passing the No. 200 sieve). A pit-run gravel may not be as effective as a coarse, angular material in stabilizing the soft soils and may require more material and greater effort. The stabilization material should be worked (pushed) into the soft subgrade soils until a firm relatively unyielding surface is established. Once a firm, relatively unyielding surface is achieved, the area may be brought to final design grade using structural fill.

In large areas of soft subgrade soils, stabilization of the subgrade may not be practical using the method outlined above. In these areas it may be more economical to place a woven geotextile fabric against the soft soils covered by 18 inches of coarse, sub-rounded to rounded material over the woven geotextile. An inexpensive non-woven geotextile “filter” fabric should also be placed over the top of the coarse, sub-rounded to rounded fill prior to placing structural fill or pavement section soils to reduce infiltration of fines from above. The woven geotextile should be Mirafi RS280i or prior approved equivalent. The filter fabric should consist of a Mirafi 140N, or equivalent as approved by the Geotechnical Engineer.

We recommend that a GeoStrata representative be on-site to assess the exposed excavation soils and be allowed to review the excavation plans when they are prepared in order to evaluate their compatibility with these recommendations.

6.2.5 Structural Fill and Compaction

All fill placed for the support of structures, flatwork or pavements, should consist of structural fill. Onsite soils may be utilized for structural fill, although the contractor should be aware that due to the over-sized aggregates or the clayey composition of the native soils, it may be difficult if not impossible to maintain active and accurate proctor values for moisture conditioning and compaction. As such, the native soil onsite may need to be screened and well mixed prior to the use of the native soils as structural fill for development. Onsite undocumented fill soils may likewise be used as structural fill. The contractor should have confidence that the anticipated method of compaction will be suitable for the type of structural fill used. All structural fill should be free of vegetation, debris or frozen material, and should contain no inert materials larger than **4 inches** in nominal diameter.

If an imported material will be used as structural fill, it should consist a relatively well-graded granular soil with a maximum of 50 percent passing the No. 4 sieve and a maximum fines content (minus No.200 mesh sieve) of 25 percent. Fill material potion finer than the No. 40 sieve should have a liquid limit (LL) less than 35 and a plasticity index (PI) less than 25. The table below provides our recommended gradation and Atterberg limits requirements for structural fill.

Grain Size	Percent Passing
4-inch	100
2-inch	85 to 100
No. 4	15 to 50
No. 200	< 25
Liquid Limit (LL)	<35
Plasticity Index (PI)	<25

All structural fill soils should be approved by the Geotechnical Engineer prior to placement. Earth materials not meeting the aforementioned criteria may be suitable for use as structural fill; however, such material should be evaluated on a case-by-case basis and should be approved by the Geotechnical Engineer prior to use. These requirements for structural fill meet the needs of the site; however, regulating entities including special service districts, cities etc. may require the

use of a predefined structural fill for use in their utility corridors/trenches. The contractor should be aware of the special requirements of structural fill by these regulating entities.

GeoStrata observed that some of the native soils meet the requirements for A-1-a according to AASTHO soil classification system. A table of the laboratory tests and soil classification are provided below;

Sample Location and Depth	USCS Classification	AASTHO Classification	Can be used as onsite structural fill
MW-TP-01	GP-GM	A-1-a	Yes
MW-TP-02	GP	A-1-a	Yes
MW-TP-04	GC	A-2-4	Yes
MW-TP-10	GP-GC	A-2-4	Yes
MW-TP-11	SM	A-1-b	Yes
MW-TP-16	GP-GM	A-1-a	Yes
MW-TP-17	SM	A-2-4	No
MW-TP-21	CL	A-6	No
MW-TP-22	CL	A-6	No
MW-TP-23	GC	A-2-4	Yes
MW-TP-29	SC	A-2-6	No

All structural fill should be placed in maximum 10-inch loose lifts if compacted by small hand-operated compaction equipment, maximum 12-inch loose lifts if compacted by riding rollers or heavy-duty compaction equipment that is capable of efficiently compacting the entire thickness of the lift. We recommend that all structural fill be compacted on a horizontal plane, unless otherwise approved by the geotechnical engineer. Structural fill should be compacted to at least 95% of the maximum dry density, as determined by ASTM D-1557, for fill 5 feet or less in thickness. The required compaction should be increased to 98% for fills greater than 5 feet in thickness. The moisture content should be at or slightly above the optimum moisture content at the time of placement and compaction. Also, prior to placing any fill, the excavations should be observed by the geotechnical engineer to observe that any unsuitable materials or loose soils have been removed. In addition, proper grading should precede placement of fill, as described in the **General Site Preparation and Grading** subsection of this report (Section 6.2.1).

We understand that grading fills and structural fill will be placed up to 12 feet in total height. Fill soils placed for subgrade below exterior flat work and pavements, should be within 3% of the optimum moisture content when placed and compacted to at least 95% of the maximum dry density as determined by ASTM D-1557, for fills less than 6 feet in depth. Fill soils placed for subgrade below exterior flat work and pavements, should be within 3% of the optimum moisture content when placed and compacted to at least 95% of the maximum dry density as determined by ASTM D-1557, for fills more than 6 feet and less than 12 feet in depth. Contact Geostrata for recommendations for fill placement exceed 12 feet in depth. All utility trenches backfilled below the proposed structure, pavements, and flatwork concrete, should be backfilled with onsite soils or structural fill that is within 3% of the optimum moisture content when placed and compacted to at least 95% of the maximum dry density as determined by ASTM D-1557. All other trenches, in landscape areas, should be backfilled and compacted to at least 90% of the maximum dry density (ASTM D-1557).

The gradation, placement, moisture, and compaction recommendations contained in this section meet our minimum requirements but may not meet the requirements of other governing agencies such as city, county, or state entities. If their requirements exceed our recommendations, their specifications should override those presented in this report.

6.3 FOUNDATIONS

The foundations for the proposed structures may consist of conventional strip and/or spread footings. Strip and spread footings should be a minimum of 20 and 30 inches wide, respectively, and exterior shallow footings should be embedded at least 30 inches below final grade for frost protection and confinement. Interior shallow footings not susceptible to frost conditions should be embedded at least 18 inches for confinement.

6.3.1 Installation and Bearing Material

Due to the presence of dense granular soils (sands and gravels) and fine-grained soils with low potential for collapsible soil present at the proposed buildings elevations (between 2 to 8 feet below the existing ground surface), strip and spread footings can be placed entirely on non-collapsible undisturbed native soils. If soil at the foundation elevation appears to have a hydro-collapsible nature (pinholes, low natural density, etc.), collapse testing in the laboratory should be performed on a lot-by-lot basis to confirm the that potential collapse will not adversely affect the proposed construction. Foundation elements should not be founded on collapsible soils, and if these soils are encountered, they should be over-excavated according to the results of lot-specific laboratory collapse testing. According to our preliminary soil collapse testing, structural

fill depth below footings will be 0 to 12 inches. The site may then be brought back up to design grade using properly placed and compacted structural fill. Structural fill should meet material recommendations and be placed and compacted as recommended in Section 6.2.5 of this report.

Foundation elements should not be founded on undocumented fill, and if these soils are encountered, they should be over-excavated until suitable, native soils are exposed. Foundation elements should not be founded on combination soils, and if these soils condition are encountered, they should be over-excavated a minimum of 1-foot. The site may then be brought back up to design grade using properly placed and compacted structural fill. Structural fill should meet material recommendations and be placed and compacted as recommended in Section 6.2.5 of this report.

All organic material, soft areas, frozen material or other inappropriate material shall be removed from the footing zone to a depth determined by the Geotechnical Engineer and be replaced with structural fill where over excavation is required.

6.3.2 Bearing Pressure

Conventional strip and spread footings founded on a native soil or on structural fill may be proportioned for a maximum net allowable bearing capacity of **1,800 pounds per square foot (psf).** The recommended net allowable bearing pressure refers to the total dead load and can be increased by ⅓ to include the sum of all loads including wind and seismic.

6.3.3 Settlement

Settlements of properly designed and constructed conventional footings, founded as described above, are anticipated to be less than 1 inch. Differential settlements should be on the order of half the total settlement over 30 feet.

6.3.4 Frost Depth

All exterior footings and spread footings are to be constructed at least 30 inches below the ground surface for frost protection and confinement. This includes walk-out areas and may require fill to be placed around buildings. Interior strip footings not susceptible to frost conditions should be embedded at least 18 inches for confinement. If foundations are constructed through the winter months, all soils on which footings will bear shall be protected from freezing.

6.3.5 Construction Observation

A geotechnical engineer shall periodically monitor excavations prior to installation of footings. Inspection of soil before placement of structural fill or concrete is required to detect any field conditions not encountered in the investigation which would alter the recommendations of this report. All structural fill material shall be tested under the direction of a geotechnical engineer for material and compaction requirements.

6.3.6 Foundation Drainage

As stated in Section 4.2.2 of this report, groundwater was not encountered in the test pits. IRC Section R405 *Foundation Drainage* recommends the construction of a foundation drain around any walls or portions thereof that retain earth and enclose spaces and floors below grade. Where a site is located in well-drained gravel or sand/gravel mixture soils, a dedicated drainage system is not required.

We recommend that the IRC Section R405 Foundation Drainage recommends be complied with. The foundation drain should consist of a 4-inch perforated pipe placed at or below the footing elevation. The pipe should be covered with at least 12 inches of free draining gravel (containing less than 5 percent passing the No. 4 sieve) and be graded to a free gravity outfall or to a pumped sump. A separator fabric, such as Mirafi 140N, should separate the free draining gravel and native soil (i.e. the separator fabric should be placed between the gravel and the native soils at the bottom of the gravel, the side of the gravel where the gravel does not lie against the concrete footing or foundation and at the top of the gravel). We recommend that the gravel extend up the foundation wall to within 2 feet of the final ground surface. As an alternative, the gravel extending up the foundation wall may be replaced with a prefabricated drain panel, such as Ecodrain-E. We recommend that the foundation drain construction be observed and documented in a subsequent observation letter.

As an added precaution, the following moisture protection mitigation recommendations should be implemented to help reduce the risk from potential settlement from occurring. These items are summarized as follows:

- Moisture should not be allowed to infiltrate into the soils in the vicinity of the foundations. As such, design strategies to minimize ponding and infiltration near the home should be implemented.

- The ground surface within 10 feet of the entire perimeter of the building should slope a minimum of five percent away from the structure. Alternatively, a slope of 5% is acceptable if the water is conveyed to a concrete ditch that will convey the water to a point of discharge that is at least 10 feet from the structures.
- Roof runoff devices (rain gutters) should be installed to direct all runoff a minimum of 10 feet away from the structure and preferably day-lighted to the curb where it can be transferred to the storm drain system. Rain gutters discharging roof runoff adjacent to or within the near vicinity of the structure may result in excessive differential settlement.
- We recommend irrigation around foundations be minimized by selective landscaping and that irrigation valves be constructed at least 5 feet away from foundations.
- Jetting (injecting water beneath the surface) to compact backfill against foundation soils may result in excessive settlement beneath the building and is not allowed.
- Backfill against foundations walls should be placed and compacted in accordance with the Section 6.2.4.
- Any additional precautions which may become evident during construction.

6.4 CONCRETE SLAB-ON-GRADE CONSTRUCTION

Concrete slabs-on-grade should be constructed over at least 4 inches of compacted gravel. Disturbed native soils should be compacted to at least 95% of the maximum dry density as determined by ASTM D-1557 (modified proctor) prior to placement of gravel. The gravel should consist of road base or clean drain rock with a ¾-inch maximum particle size and no more than 12 percent fines passing the No. 200 mesh sieve. The gravel layer should be compacted to at least 95 percent of the maximum dry density of modified proctor or until tight and relatively unyielding if the material is non-proctorable. The maximum load on the floor slab should not exceed 100 psf; greater loads would require additional subgrade preparation and additional structural fill. All concrete slabs should be designed to minimize cracking as a result of shrinkage. Consideration should be given to reinforcing the slab with welded wire, re-bar, or fiber mesh.

6.5 EARTH PRESSURE AND LATERAL RESISTANCE

Lateral forces imposed upon conventional foundations due to wind or seismic forces may be resisted by the development of passive earth pressures and friction between the base of the footing and the supporting subgrade. In determining the frictional resistance, a coefficient of friction of 0.41 should be used for native soils against concrete or 0.43 for structural fill against concrete.

Ultimate lateral earth pressures from native soil backfill acting against retaining walls and buried structures may be computed from the lateral pressure coefficients or equivalent fluid densities presented in the following table:

Condition	Lateral Pressure Coefficient	Equivalent Fluid Density (pounds per cubic foot)
Active[1]	0.29	34
At-rest[2]	0.48	58
Passive[1]	11.62	1394
Seismic Active[3]	0.32	39
Seismic Passive[4]	-8.92	-1071

[1]Based on Coulomb's equation

[2]Based on Jaky

[3]Based on Lew et al. (2010)

[4]Based on Mononobe-Okabe Equation

These coefficients and densities assume level, granular backfill with no buildup of hydrostatic pressures. The force of the water should be added to the presented values if hydrostatic pressures are anticipated. If sloping backfill is present, we recommend the geotechnical engineer be consulted to provide more accurate lateral pressure parameters once the design geometry is established.

Walls and structures allowed to rotate slightly should use the active condition. If the element is constrained against rotation, the at-rest condition should be used. These values should be used with an appropriate factor of safety against overturning and sliding. A value of 1.5 is typically used. Additionally, if passive resistance is calculated in conjunction with frictional resistance, the passive resistance should be reduced by ½.

For seismic analyses, the *active* and *passive* earth pressure coefficient provided in the table is based on Lew et al (2010) and Mononobe-Okabe respectively and only accounts for the dynamic horizontal thrust produced by ground motion. Hence, the resulting dynamic thrust pressure should be added to the static pressure to determine the total pressure on the wall. The pressure distribution of the dynamic horizontal thrust may be closely approximated as an inverted triangle with stress decreasing with depth and the resultant acting at a distance approximately 0.6 times the loaded height of the structure, measured upward from the bottom of the structure.

The coefficients shown assume a vertical wall face. Hydrostatic and surcharge loadings, if any, should be added. Over-compaction behind walls should be avoided. Resisting passive earth pressure from soils subject to frost or heave, or otherwise above prescribed minimum depths of embedment, should usually be neglected in design.

6.6 PAVEMENT SECTION

For pavement design, the following CBR laboratory test result was obtained:

Test Pit	Depth (ft)	Soil Type	CBR (%)
MW- TP-01	7.0	GP-GM	76.7

The test results indicate that CBR value of 76.7 we have elected to use a CBR value of 10.0 in design. This design value well below the test result and is use because of the various soil types encountered at the surface of the site. No traffic information was available at the time this report was prepared; therefore, GeoStrata has assumed traffic counts for the local and private roads and parking areas. We assumed that vehicle traffic along the local and private roadways will consist of approximately 1,500 passenger car trips per day, 2 small trucks per day, and 2 large trucks per day with a 20-year design life. Based on these assumptions, our analysis uses 51,000 ESAL's for for a 20-year design life of the pavement. We assumed that vehicle traffic along the collector and arterial roads will consist of approximately 1,275,000 ESAL's for a 20-year design life (approximately 25 times greater than private roads).

Based on these assumptions, our analysis uses 51,000 and 1,275,000 ESAL's for the traffic over the life of the pavement. Asphalt has been assumed to be a high stability plant mix or Superpave mix with a minimum CBR of 70. The untreated base course material (road base or UTBC) composed of crushed stone with a minimum CBR of 30. The table below presents equivalent recommended pavement sections based on the above assumptions. The City of Lehi or Draper City required minimum pavement sections may govern the pavement design.

Local and Private Roadways Pavement Sections

Pavement Materials	Recommended Minimum Thickness (in)		
	Pavement 1	Pavement 2	City Minimum
Asphaltic Concrete	3	3	3
Untreated Base Course	6	8	6
Granular Borrow/ Engineered Fill	6	0	8

Collector and Arterial Pavement Sections

Pavement Materials	Recommended Minimum Thickness (in)		
	Pavement 1	Pavement 2	City Minimum
Asphaltic Concrete	5	5	6.5
Untreated Base Course	6	8	6
Granular Borrow/ Engineered Fill	9	8	8

The pavement section thicknesses above assume that there is no mixing over time between the road base and the softer native layers below. In order to prevent mixing or fines migration, and thereby prolong the life of the pavement section, we recommend that the owner give consideration to placing a non-woven filter fabric between the native soils and the road base. We recommend that a Propex Geotex® NW-401, NW-601, or a GeoStrata-approved equivalent be used.

If traffic conditions vary significantly from our stated assumptions, GeoStrata should be contacted so we can modify our pavement design parameters accordingly. Specifically, if the traffic counts are significantly higher or lower, we should be contacted to review the pavement sections as necessary. The pavement sections thicknesses above assumes that the majority of construction traffic including cement trucks, cranes, loaded haulers, etc. has ceased. If a significant volume of construction traffic occurs after the pavement section has been constructed, the owner should anticipate maintenance or a decrease in the design life of the pavement area.

In our experience, in areas with heavy truck loads where trucks frequently turn around, backup, or load and unload, such as areas around dumpsters, pavements experience more distress. To prolong the life of the pavement in these areas, consideration should be given to using a Portland

cement concrete (rigid) pavement in these areas. The table below presents our recommended rigid pavement section.

Rigid Pavement Section

Pavement Materials	Recommended Minimum Thickness (in)
	Rigid Pavement 1
Concrete	5
Untreated Base Course	6

Concrete should consist of a low slump, low water cement ratio mix with a minimum 28-day compressive strength of 4,000 psi. Base course should be compacted to at least 95% of the maximum dry density as determined by the ASTM D-1557.

The pavement sections discussed above meet our minimum recommendations for pavement design. It should be noted that more stringent pavement section requirements may be enforced by Lehi City, Draper City, Utah County or other governing agency.

7.0 CLOSURE

7.1 LIMITATIONS

The recommendations contained in this report are based on our limited field exploration, laboratory testing, and understanding of the proposed construction. The subsurface data used in the preparation of this report were obtained from the explorations made for this investigation. It is possible that variations in the soil and groundwater conditions could exist between and beyond the points explored. The nature and extent of variations may not be evident until construction occurs. If any conditions are encountered at this site that are different from those described in this report, GeoStrata should be immediately notified so that we may make any necessary revisions to recommendations contained in this report. In addition, if the scope of the proposed construction changes from that described in this report, GeoStrata should be notified.

This report was prepared in accordance with the generally accepted standard of practice at the time the report was written. No other warranty, expressed or implied, is made.

It is the Client's responsibility to see that all parties to the project including the Designer, Contractor, Subcontractors, etc. are made aware of this report in its entirety. The use of information contained in this report for bidding purposes should be done at the Contractor's option and risk.

7.2 ADDITIONAL SERVICES

The recommendations made in this report are based on the assumption that an adequate program of tests and observations will be made during construction. GeoStrata staff should be on site to verify compliance with these recommendations. These tests and observations should include, but not necessarily be limited to, the following:

- Observations and testing during site preparation, earthwork and structural fill placement.
- Observation of foundation soils to assess their suitability for footing placement.
- Observation of soft/loose soils over-excavation.
- Observation of temporary excavations and shoring.
- Consultation as may be required during construction.
- Quality control and observation of concrete placement.

We also recommend that project plans and specifications be reviewed by GeoStrata to verify compatibility with our conclusions and recommendations. Additional information concerning the scope and cost of these services can be obtained from our office.

We appreciate the opportunity to be of service on this project. Should you have any questions regarding the report or wish to discuss additional services, please do not hesitate to contact us at your convenience at (801) 501-0583.

7.3 ACKNOWLEDGEMENTS

This project was made possible through the help of Dan Mitchell and Scott Bishop with D.R. Horton, they scheduled meetings with the landowners and worked on permits for land disturbance and scheduled a second trackhoe to dig the east side of the property test pits at the site. Dale Judd with JSI Ventures, LLC, the operator with the excavation company that completed the test pits on the west side of the property. Bryce Jackson, E.I.T., Nate Flores, Ashley Peay, and James Moore with GeoStrata all logged test pits and collected samples at the site. Jerry Olson and Jack Berry with Micron Technology, Inc met multiple times to discuss utility location. There are others with GeoStrata, D.R. Horton, and Micron Technology Inc. that made this project happen. Thank you.

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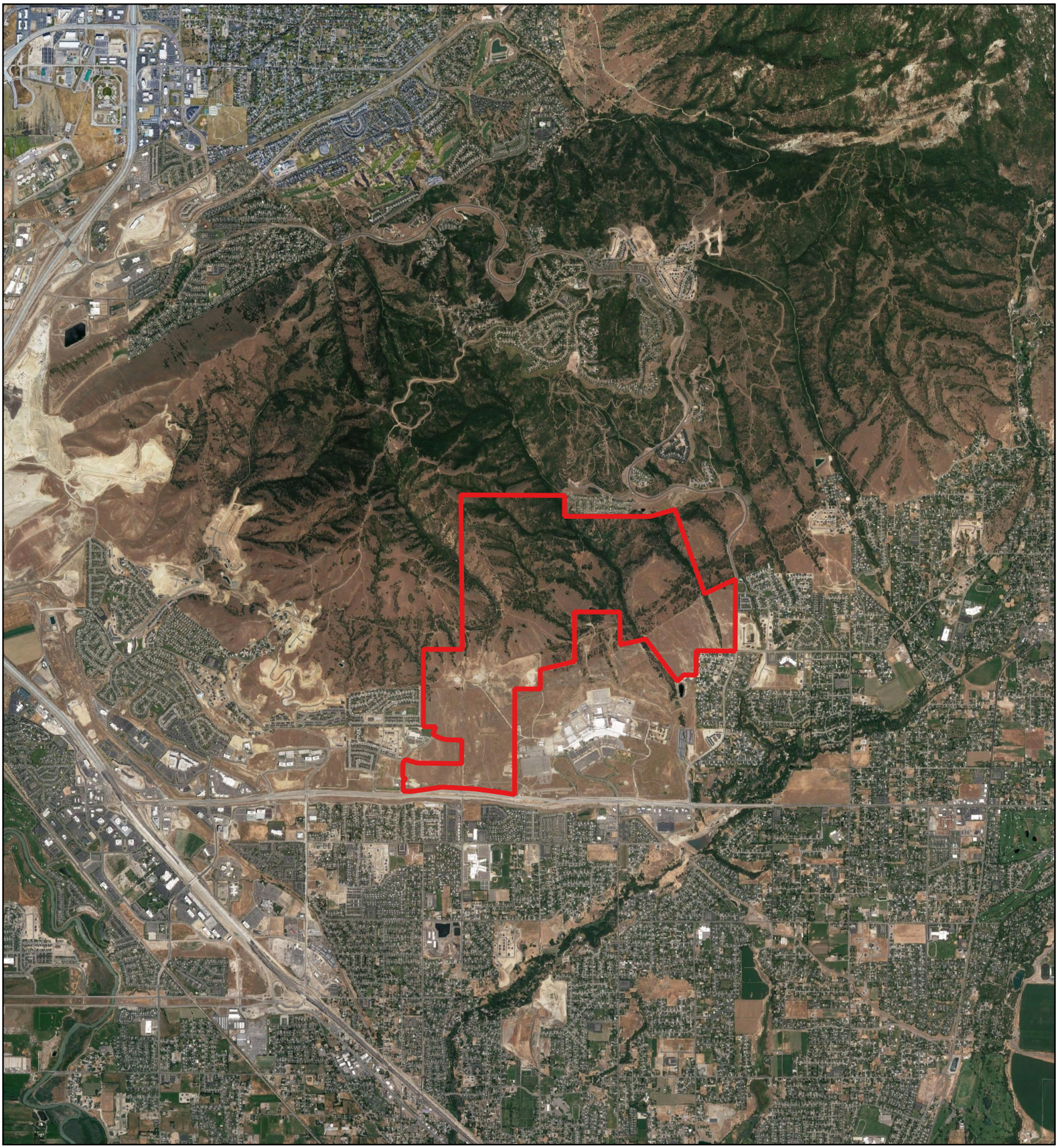
APPENDIX A



Legend

Bondaries

400 0 400 800 1200 1600 ft

1:52800

N

GeoStrata

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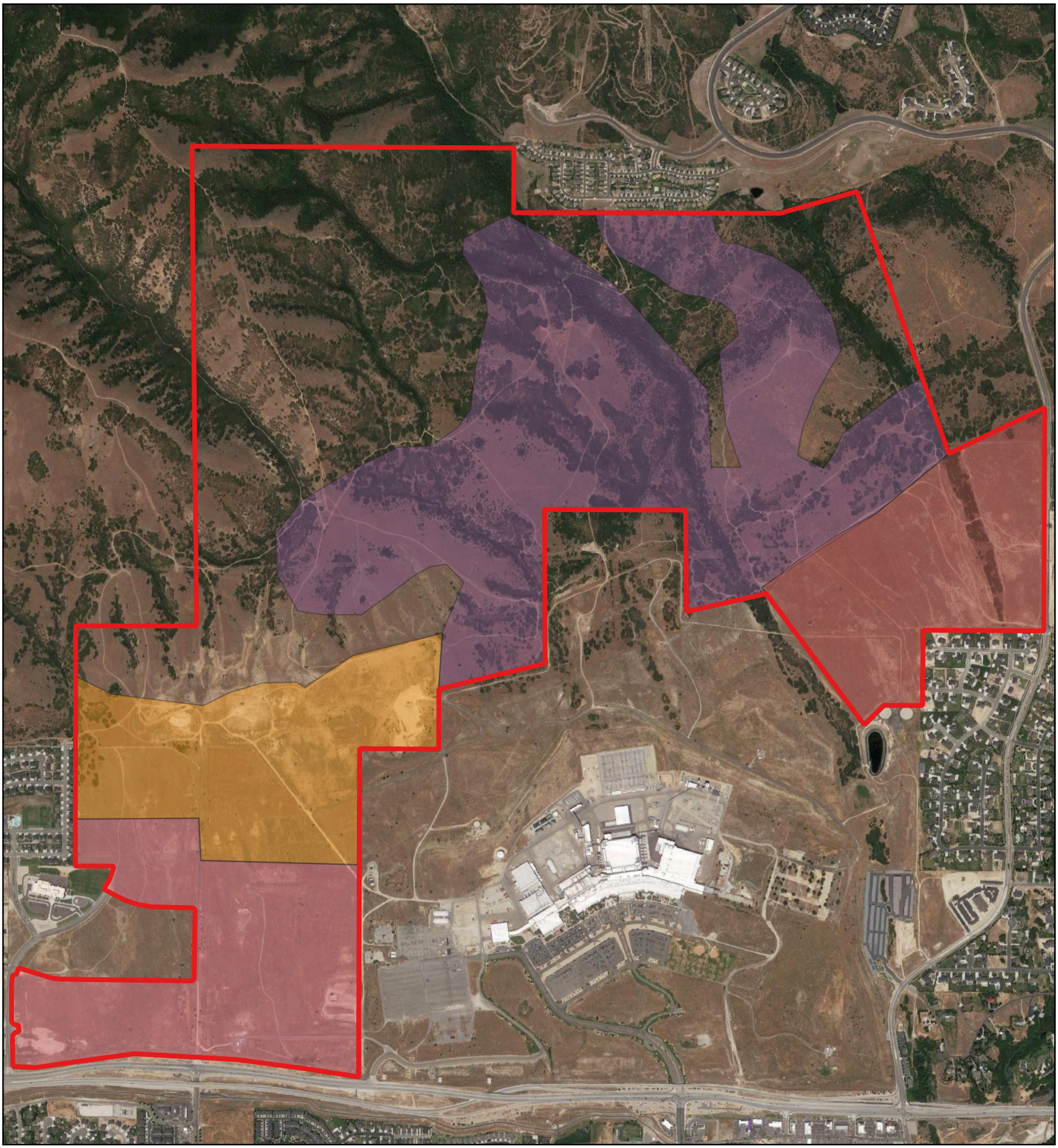
D.R. Horton
Mircon Property
Lehi/Draper, Utah
Project Number

Site Vicinity Map

Plate A-1

1254



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Legend

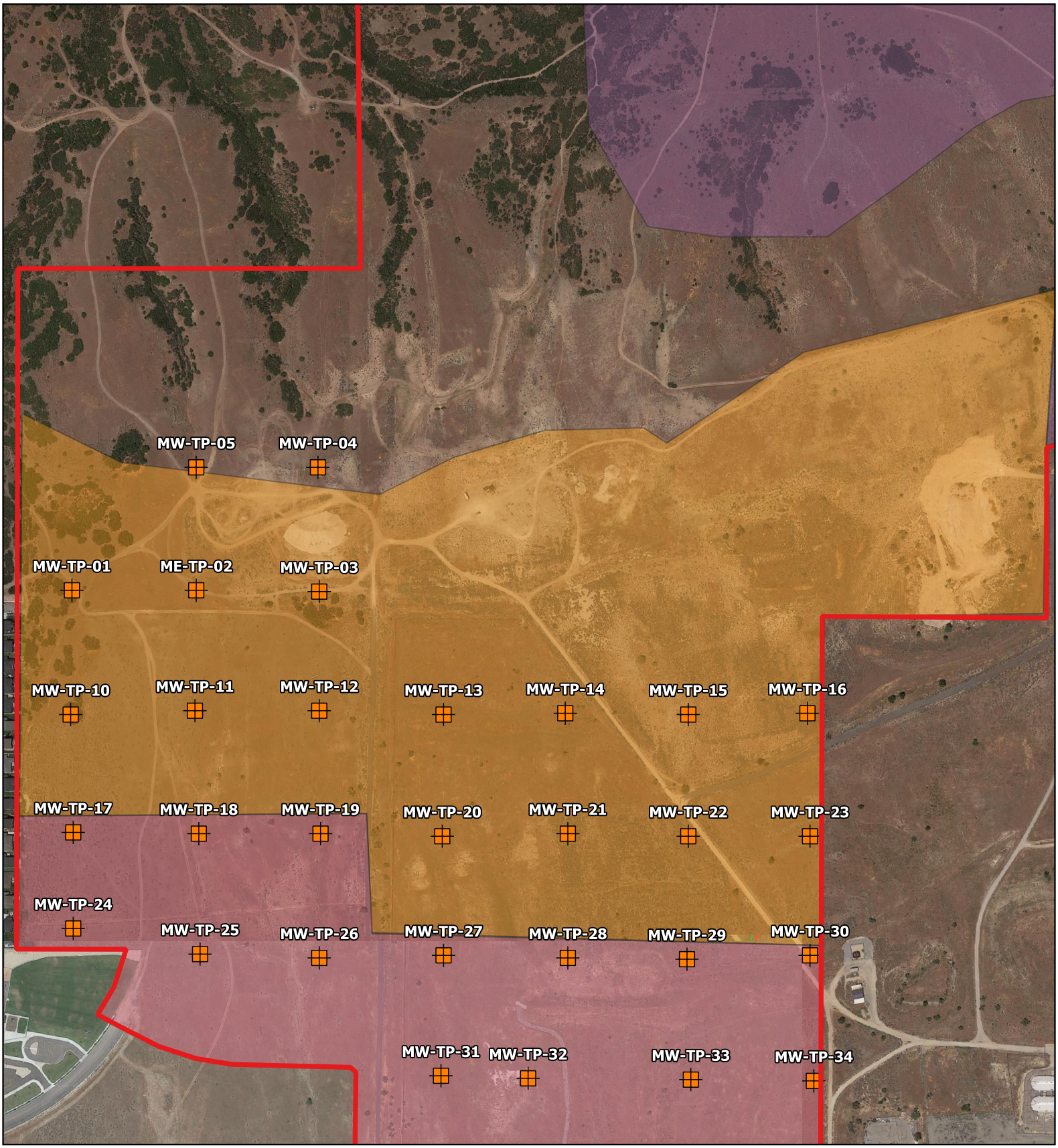
- Mircon Property Boundaries
- High Density Single Family, Commerial, and Apartments
- Lehi Emerald Single Family and Single Family
- Highland Emerald Single Family
- Mountain Single Family

D.R. Horton
Mircon Property
Lehi/Draper, Utah
Project Number

Site Section Map

Plate A-2

1255



Legend

- Mircon Property Boundaries
- Approximate Test Pit Location
- High Density Single Family, Commercial, and Apartments
- Lehi Emerald Single Family and Single Family
- Highland Emerald Single Family
- Mountain Single Family

400 0 400 800 1200 1600 ft

1:6000

N

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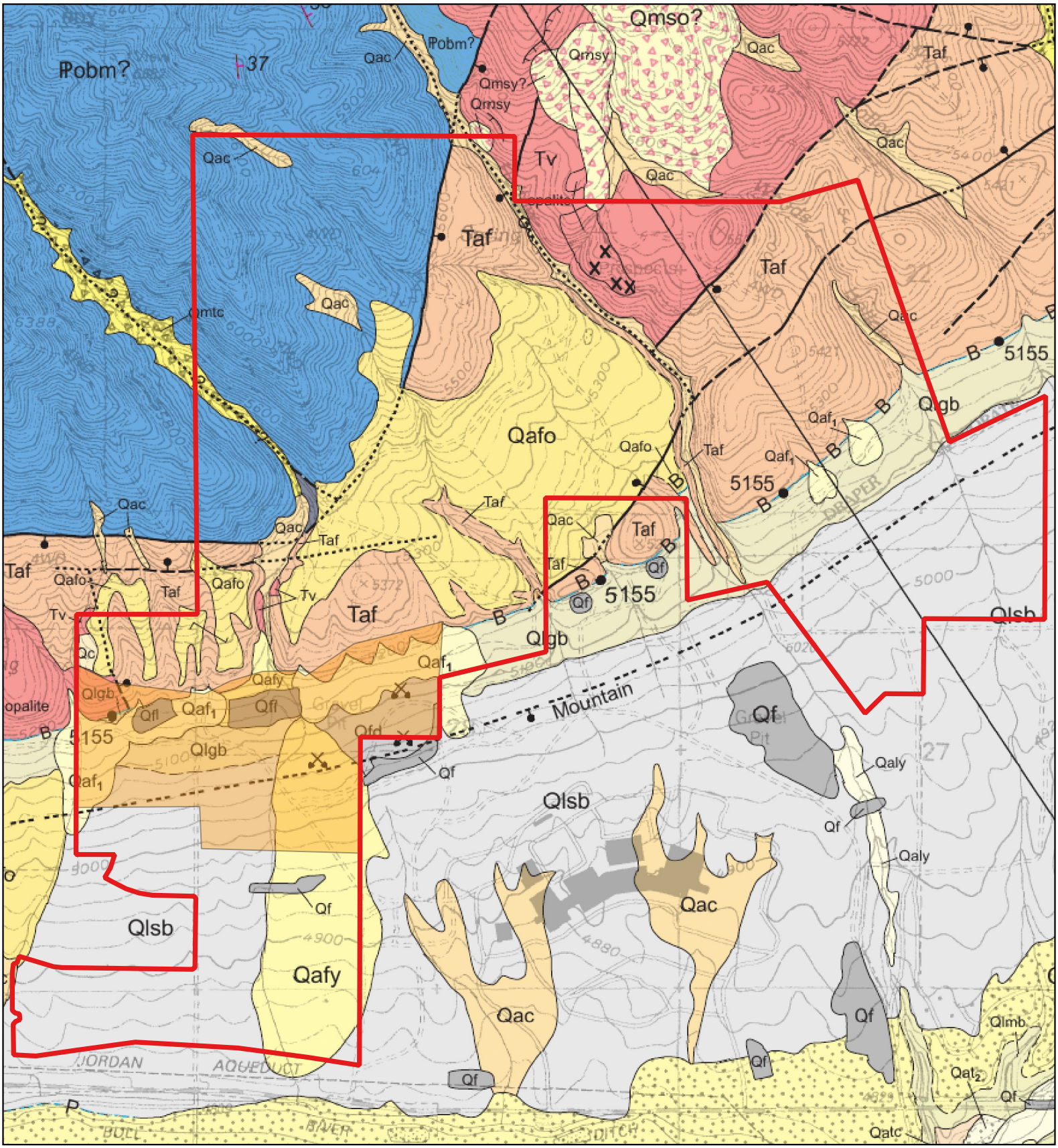
Mircon Property
Lehi/Draper, Utah

Lehi Emerald Single Family and Single Family Section Exploration Map

Plate A-3

1256



Legend

- Mircon Property Boundaries
- Lehi Emerald Single Family and Single Family

400 0 400 800 1200 1600 ft

1:17000

N

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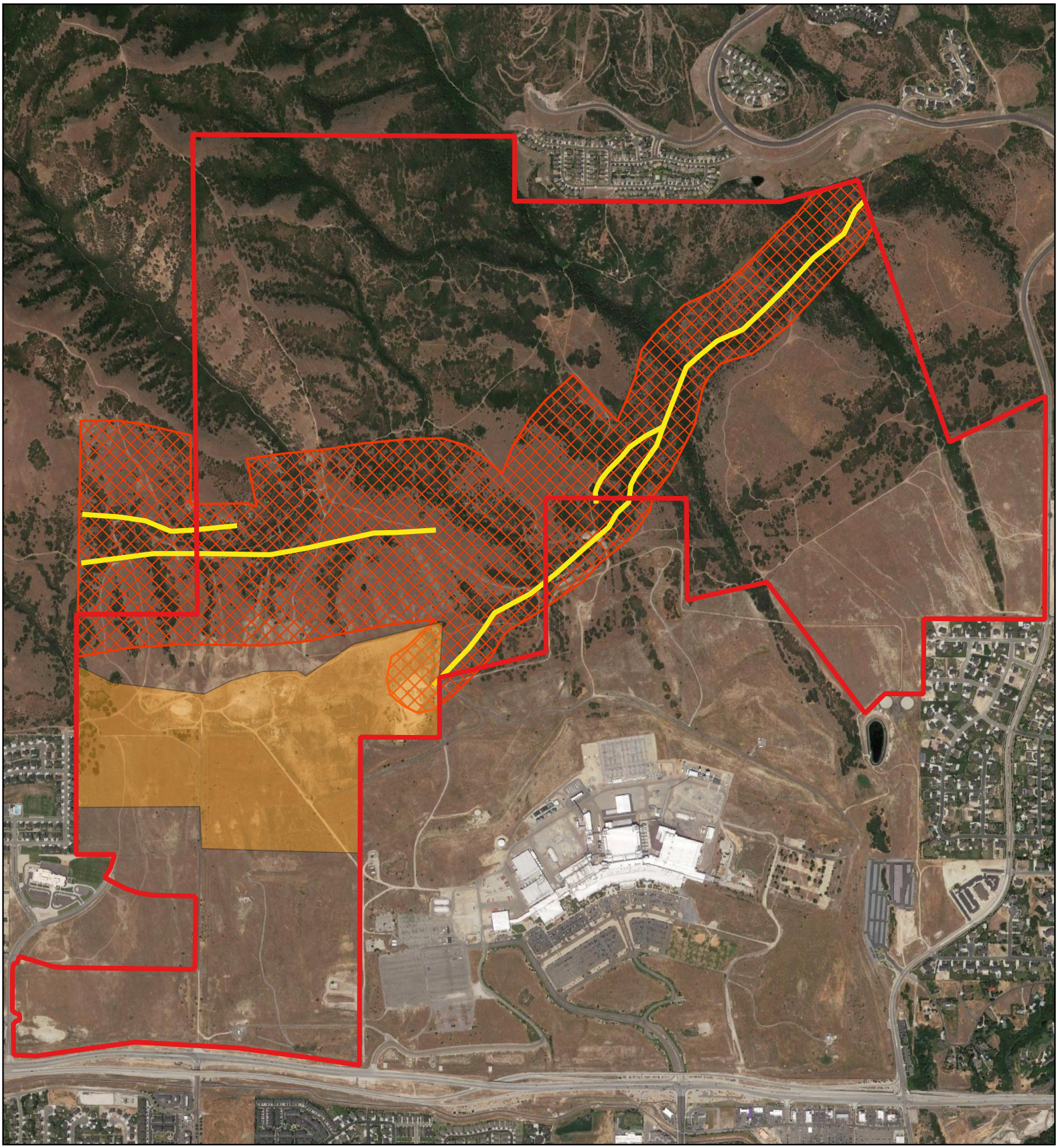
D.R. Horton
Mircon Property
Lehi/Draper, Utah
Project Number 589-100

Site Geology Map

Plate A-4

1257



Legend

- Mircon Property Boundaries
- Lehi Emerald Single Family and Single Family
- Approximate Faults
- Fault Special Study Area

400 0 400 800 1200 1600 ft

1:17000

N

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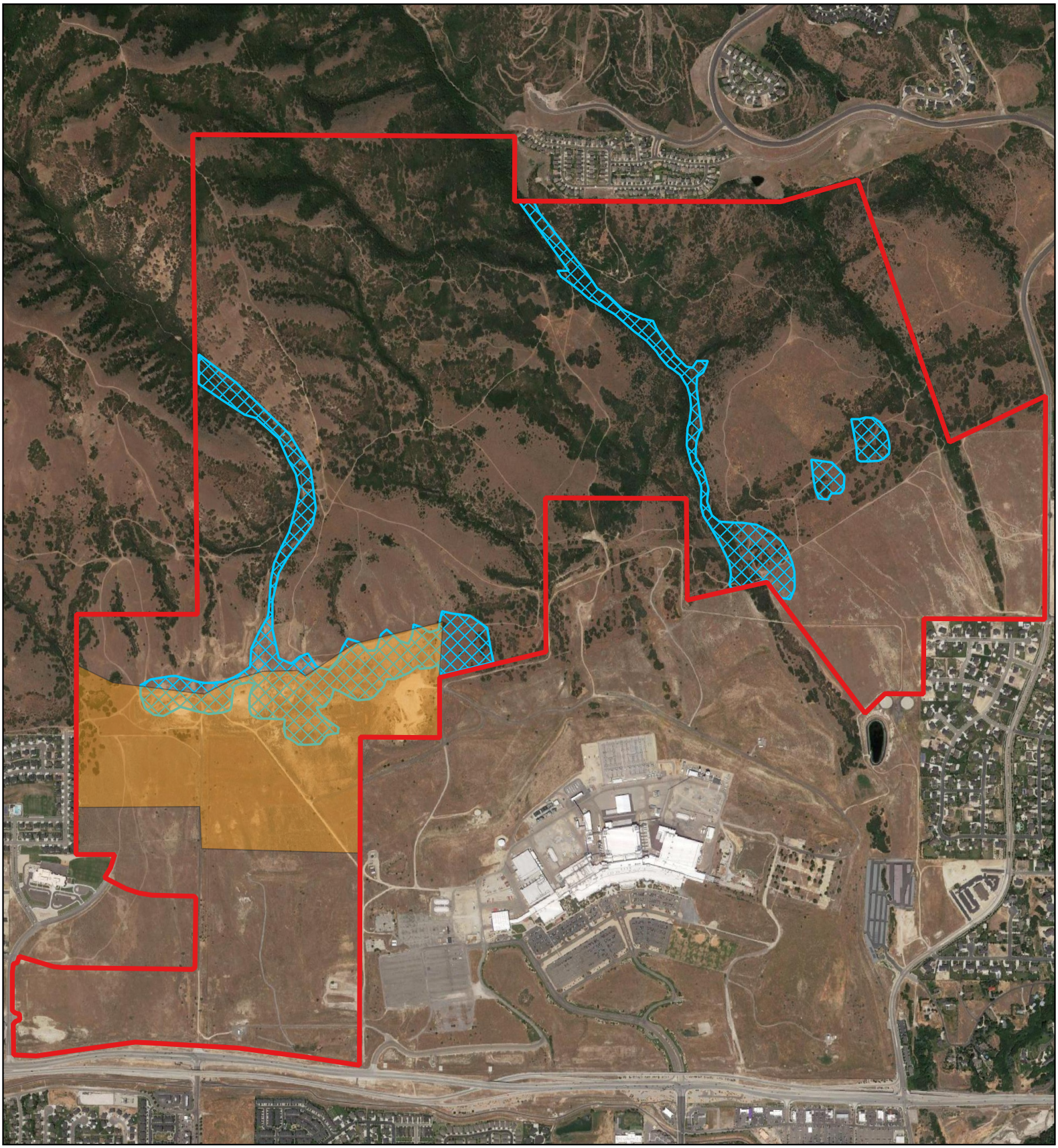
Mircon Property
Lehi/Draper, Utah
Project Number 589-100

Fault and Fault Special Study Area Map

Plate A-5



Legend

- Mircon Property Boundaries
- Lehi Emerald Single Family and Single Family
- Debris Flow Study Areas

400 0 400 800 1200 1600 ft

1:17000

N

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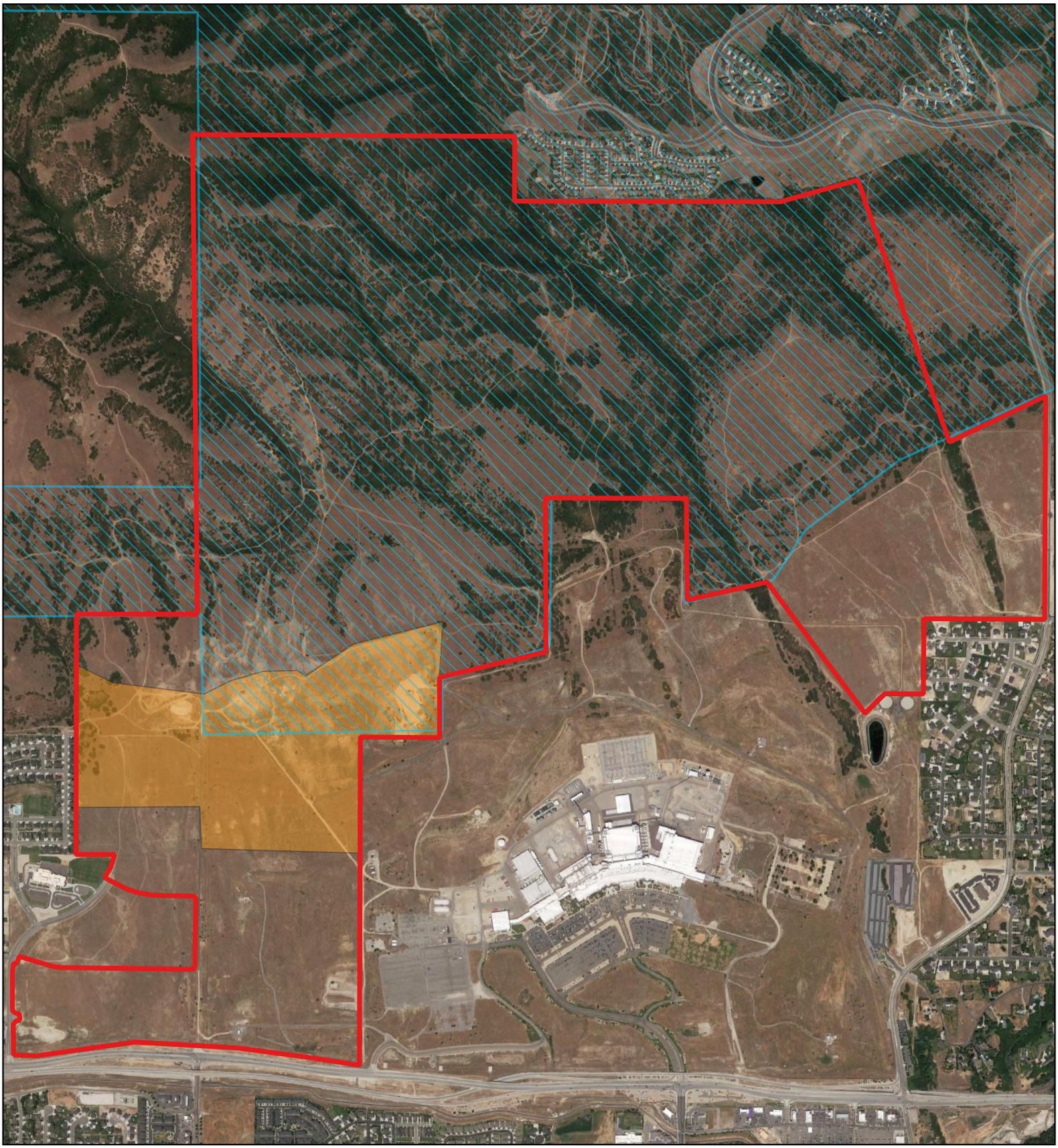
Mircon Property
Lehi/Draper, Utah
Project Number 589-100

Debris Flow Special Study Area Map

Plate A-6



Legend

- Mircon Property Boundaries
- Slope Stability Special Study Area

400 0 400 800 1200 1600 ft

1:17000

N

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Mircon Property
Lehi/Draper, Utah
Project Number 589-100

Slope Stability Special Study Area Map

Plate A-7

1260

APPENDIX B

DATE	
STARTED:	12/1/20
COMPLETED:	12/1/20
BACKFILLED:	12/1/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-01
Sheet 1 of 1

LOCATION
NORTHING 4,477,248.00 EASTING 4,477,248.00 ELEVATION 5,142-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					GP-GM	Poorly Graded GRAVEL with silt and sand - dense, moist, light brown, gravels and cobbles up to 6 inches in diameter						
1												
	5											
2								3.3	10.9	22	4	
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 1

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/1/20
COMPLETED:	12/1/20
BACKFILLED:	12/1/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-02
Sheet 1 of 1

LOCATION
NORTHING 4,477,249.00 EASTING 4,477,249.00 ELEVATION 5,123-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - dense, moist, dark brown, gravels and cobbles up to 6 inches in diameter						
					SM	Silty SAND with gravel - dense, moist, light brown, gravels and cobbles up to 6 inches in diameter						
1												
	5											
2												
					GP	Poorly Graded GRAVEL with sand - medium dense, moist, brown, subrounded gravel up to 5 inches in diameter		5.1	3.4	NP	NP	
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 2

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/1/20
COMPLETED:	12/1/20
BACKFILLED:	12/1/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-03
Sheet 1 of 1

LOCATION
NORTHING 4,477,241.00 EASTING 4,477,241.00 ELEVATION 5,114-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					Roadbase - Silty SAND with gravel - light brown, moist						
					CL-ML	Silty CLAY - stiff, moist, dark brown						
1					ML	SILT - stiff, moist, light brown	92.5	8.0	69.3			●
	5											
2					SM	Silty SAND - medium dense, moist, brown, subrounded gravel up to 3 inches in diameter						
3	10				SP	Poorly Graded SAND with gravel - medium dense, moist, dark brown, subrounded gravel up to 3 inches in diameter						
4						Bottom of Test Pit @ 12 Feet						

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 3

DATE	
STARTED:	12/1/20
COMPLETED:	12/1/20
BACKFILLED:	12/1/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-04
Sheet 1 of 1

LOCATION
NORTHING 4,477,396.00 EASTING 4,477,396.00 ELEVATION 5,170-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					GC	Clayey GRAVEL with sand - dense, moist, dark brown, gravels and cobbles up to 6 inches in diameter						
1								4.0	25.2	24	8	
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 4

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/1/20
COMPLETED:	12/1/20
BACKFILLED:	12/1/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-05
Sheet 1 of 1

LOCATION
NORTHING 4,477,391.00 EASTING 4,477,391.00 ELEVATION 5,182-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - dense, moist, dark brown, gravels and cobbles up to 6 inches in diameter						
1												
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 5

DATE	
STARTED:	12/1/20
COMPLETED:	12/1/20
BACKFILLED:	12/1/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-10
Sheet 1 of 1

LOCATION
NORTHING 4,477,099.00 EASTING 4,477,099.00 ELEVATION 5,092-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					GP-GC	Poorly Graded GRAVEL with clay and sand - dense, moist, dark brown						
								2.2	13.1	25	9	
1												
	5											
					SP	Poorly Graded SAND with gravel - medium dense, moist, brown, subrounded gravel up to 3 inches in diameter						
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 6

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/1/20
COMPLETED:	12/1/20
BACKFILLED:	12/1/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-11
Sheet 1 of 1

LOCATION
NORTHING 4,477,103.00 EASTING 4,477,103.00 ELEVATION 5,071-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - stiff, moist, dark brown						
1												
	5											
2								5.7	21.6	NP	NP	●
						Bottom of Test Pit @ 8 Feet						
3	10											
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 7

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/1/20
COMPLETED:	12/1/20
BACKFILLED:	12/1/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-12
Sheet 1 of 1

LOCATION
NORTHING 4,477,106.00 EASTING 4,477,106.00 ELEVATION 5,065-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					ML	Sandy SILT with gravel - stiff, moist, brown						
1												
	5											
					SM	Silty SAND - medium dense , moist, tan	95.0	5.3	39.5			●
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 8

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-13
Sheet 1 of 1

LOCATION
NORTHING 4,477,092.00 EASTING 4,477,092.00 ELEVATION 5,058-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - medium dense, moist, dark brown						
1						-light brown						
2	5											
					SM	Silty SAND - dense, moist, light brown, Fe staining throughout	81.0	16.7	41.7	NP	NP	●
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 9

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-14
Sheet 1 of 1

LOCATION
NORTHING 4,477,101.00 EASTING 4,477,101.00 ELEVATION 5,051-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - medium dense, moist, light brown						
1												
	5											
2							110.7	13.5	41.3			●
					SM	Silty SAND - dense, moist, light brown, few carbonite stringers						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 10

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-15
Sheet 1 of 1

LOCATION
NORTHING 4,477,102.00 EASTING 4,477,102.00 ELEVATION 5,046-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - medium dense, moist, light brown						
1												
	5											
					SM	Silty SAND - dense, moist, light brown						
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 11

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-16
Sheet 1 of 1

LOCATION
NORTHING 4,477,097.00 EASTING 4,477,097.00 ELEVATION 5,040-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					GP-GM	Poorly Graded GRAVEL with silt and sand - medium dense, moist, brown, subrounded gravel up to 3 inches in diameter						
								3.6	7.0	NP	NP	
1												
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 12

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-17
Sheet 1 of 1

LOCATION
NORTHING 4,476,957.00 EASTING 4,476,957.00 ELEVATION 5,040-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - medium dense, moist, dark brown						
1								4.1	25.6	NP	NP	
	5											
2												
					SM	Sandy SILT with gravel - stiff, moist, light brown						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 13

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-18
Sheet 1 of 1

LOCATION
NORTHING 4,476,959.00 EASTING 4,476,959.00 ELEVATION 5,024-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy SILT with gravel - dark brown, moist, organics throughout						
					CL	Lean CLAY with sand - stiff, moist, dark brown						
1						-light brown, with iron staining	86.7	20.1	85.1			●
	5											
2					SP	Poorly Graded SAND with gravel - medium dense, moist, light brown, subrounded gravel up to 3 inches in diameter						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 14

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-19
Sheet 1 of 1

LOCATION
NORTHING 4,476,956.00 EASTING 4,476,956.00 ELEVATION 5,018-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - dense, moist, light brown, gravels and cobbles up to 6 inches in diameter						
1												
	5											
					ML	Sandy SILT - stiff, moist, tan	88.6	8.1	65.1			●
2												
3	10				SM	Silty SAND with gravel - dense, moist, tan, gravels and cobbles up to 6 inches in diameter						
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 15

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-20
Sheet 1 of 1

LOCATION
NORTHING 4,476,954.00 EASTING 4,476,954.00 ELEVATION 5,009-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout					
					ML	Sandy SILT - stiff, moist, tan					
1							92.9	21.8	83.7		
	5										
					SM	Silty SAND - dense, moist, light brown, Fe staining throughout					
2											
3	10				SM	Silty SAND with gravel - dense, moist, tan, gravels and cobbles up to 6 inches in diameter					
						Bottom of Test Pit @ 12 Feet					
4											

Moisture Content and Atterberg Limits

Plastic Limit — Moisture Content — Liquid Limit

10 20 30 40 50 60 70 80 90

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 16

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-21
Sheet 1 of 1

LOCATION
NORTHING 4,476,955.00 EASTING 4,476,955.00 ELEVATION 5,001-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL; Sandy Lean CLAY - dark brown, moist, organics throughout						
					CL	Lean CLAY with sand - stiff, moist, dark brown, minor organics						
1							86.6	15.7	82.6	38	14	
	5											
2												
					SM	Silty SAND - dense, moist, light brown, Fe staining throughout						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 17

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-22
Sheet 1 of 1

LOCATION
NORTHING 4,476,953.00 EASTING 4,476,953.00 ELEVATION 5,009-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					CL	Sandy Lean CLAY - stiff, moist, tan						
								7.5	65.5	29	13	
1												
					CL	Lean CLAY with sand and gravel - stiff to hard, moist, dark brown						
	5				SP	Poorly Graded SAND with gravel - dense, moist, tan, gravels, cobbles and boulders up to 12 inches in diameter						
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 18

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-23
Sheet 1 of 1

LOCATION
NORTHING 4,476,953.00 EASTING 4,476,953.00 ELEVATION 4,998-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					GC	Clayey GRAVEL with sand - dense, moist, light brown		4.6	32.9	24	7	
1												
	5											
2												
					SP	Poorly Graded SAND with gravel - medium dense, moist, tan						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 19

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-27
Sheet 1 of 1

LOCATION
NORTHING 4,476,814.00 EASTING 4,476,814.00 ELEVATION 4,965-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - dense, moist, light brown, gravels and cobbles up to 6 inches in diameter						
1					SP	Poorly Graded SAND with gravel - medium dense, moist, light brown						
	5											
					SM	Silty SAND with gravel - dense, moist, light brown, gravels and cobbles up to 6 inches in diameter						
2					SP	Poorly Graded SAND with gravel - medium dense, moist, light brown						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 20

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-28
Sheet 1 of 1

LOCATION
NORTHING 4,476,812.40 EASTING 4,476,812.40 ELEVATION 4,958-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					CL-ML	Sandy Silty CLAY - stiff, moist, tan						
1							107.0	6.8	79.2	25	18	
					SM	Silty SAND with gravel - dense, moist, light brown						
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-29
Sheet 1 of 1

LOCATION
NORTHING 4,476,807.40 EASTING 4,476,807.40 ELEVATION 4,961-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					ML	Sandy SILT with gravel - stiff, moist, brown						
					SC	Clayey SAND with gravel - medium dense, moist, tan		4.7	31.3	30	15	
1												
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 22

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: B.J.
Rig Type: Trackhoe

TEST PIT NO: MW-TP-30
Sheet 1 of 1

LOCATION
NORTHING 4,476,814.60 EASTING 4,476,814.60 ELEVATION 4,963-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout					
					ML	Sandy SILT with gravel - stiff, moist, dark brown					
					CL	Lean CLAY - stiff, moist. dark brown					
1							126.6	14.2	92.5	35	15
	5					- some white mottling					
2						- some iron staining					
3	10					Bottom of Test Pit @ 10 Feet					
4											

Moisture Content and Atterberg Limits

Plastic Limit — Moisture Content — Liquid Limit

10 20 30 40 50 60 70 80 90

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 23

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

Unified Soil Classification Per ASTM D 2488

Primary Divisions			Group Symbol	Group Name
COARSE-GRAINED SOILS more than 50% retained on the No. 200 Sieve	GRAVEL More than half of the coarse fraction is larger than the #4 sieve	Clean Gravel	GW	Well Graded GRAVEL
			GP	Poorly Graded GRAVEL
		Gravel with Duel Classifications	GW-GM	Well Graded GRAVEL with silt
			GP-GM	Poorly Graded GRAVEL with silt
			GW-GC	Well Graded GRAVEL with clay
			GP-GC	Poorly Graded GRAVEL with clay
		Gravel with Fines	GM	Silty GRAVEL
			GC	Clayey GRAVEL
			GC-GM	Silty, Clayey GRAVEL
	SAND More than half of the coarse fraction is smaller than the #4 sieve	Clean Sand	SW	Well Graded SAND
			SP	Poorly Graded SAND
		Sand with Dual Classifications	SW-SM	Well Graded SAND with silt
			SP-SM	Poorly Graded SAND with silt
			SW-SC	Well Graded SAND with clay
			SP-SC	Well Graded SAND with clay
		Sand with Fines	SM	Silty SAND
			SC	Clayey SAND
			SC-SM	Silty, Clayey SAND
FINE-GRAINED SOILS 50% or more passes No. 200 Sieve	SILTY & CLAY less than 50%	Inorganic	CL	Lean CLAY
			ML	SILT
			CL-ML	Silty CLAY
		Organic	OL	Organic CLAY or Organic SILT
	SILTY & CLAY LL 50% or more	Inorganic	CH	Fat CLAY
			MH	Elastic SILT
		Organic	OH	Organic CLAY or Organic SILT
	Highly Organic Soils		PT	Peat

Exploration Log Key

Sample Symbols	Ground Water Symbol	
Auger Cuttings	Measured Groundwater Elevation	
California Sampler	Estimated Groundwater Elevation	
	Relative Density	**SPT N (blows/ft)**
Rock Core	Very Loose	0 to 4
	Loose	5 to 10
	Med. Dense	11 to 30
Bag or Block Sample	Dense	31 to 50
	Very Dense	>51
	Consistency	**SPT N (blows/ft)**
Modified California Sampler	Very Soft	0 to 1
	Soft	2 to 4
No Recovery	Med. Stiff	5 to 8
	Stiff	9 to 15
	Very Stiff	16 to 30
Split Spoon	Hard	31 to 60
	Very Hard	>61
	Modifiers	
Shelby Tube	Description	Percentage
	Trace	less than 5
Dames and More Sampler	Some	5 to 12
	With	more than 12

GeoStrata

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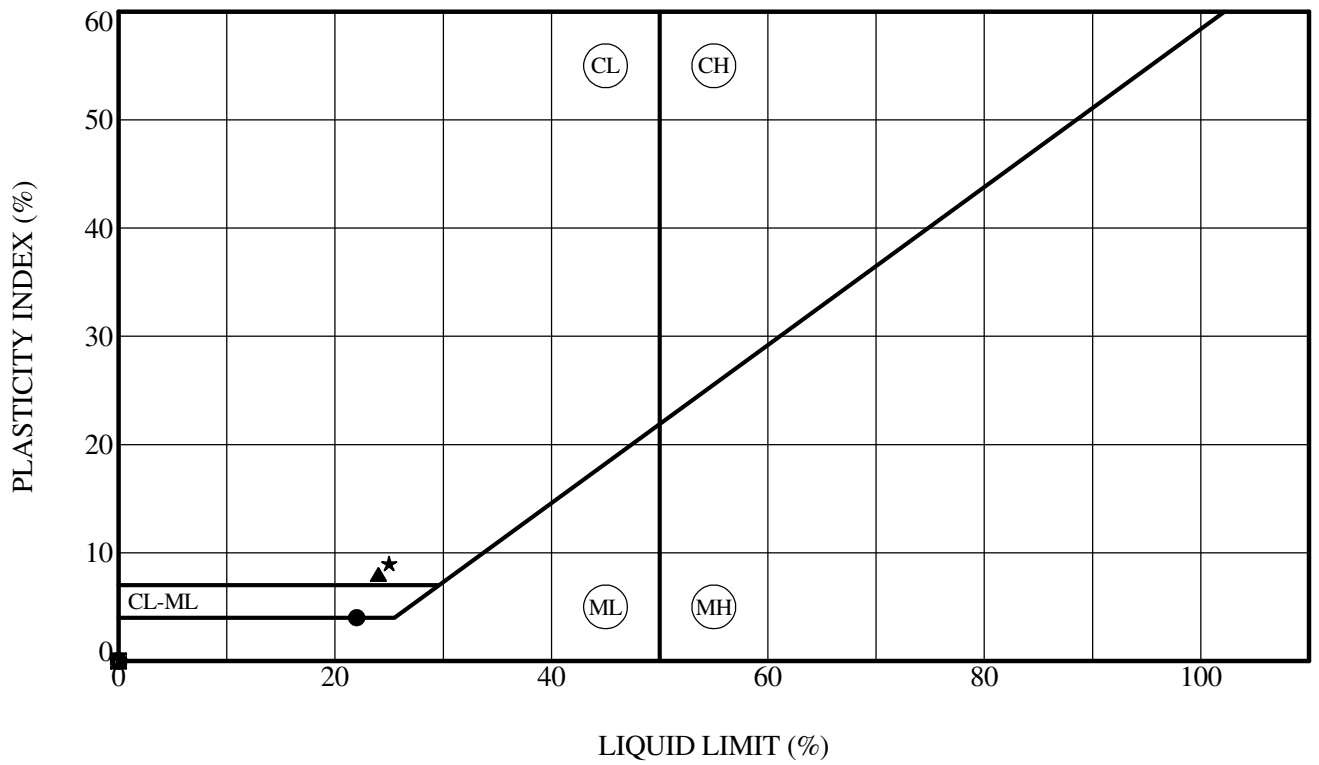
Soil Symbols and Description Key

D.R. Horton
Micron Property
Lehi/Draper, Utah
Project Number: 589-100

Plate B-24

APPENDIX C

Test Pit No.	Sample Depth (feet)	USCS Soil Classification	Natural Moisture Content (%)	Natural Dry Density (pcf)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Gradation			Atterberg		Consolidation			Collapse (%)	CBR (%)
							Gravel (%)	Sand (%)	Fines (%)	LL	PI	Cc	Cr	OCR		
MW-TP-01	7	GP-GM	3.3		6.1	136.3	46.1	38.1	10.9	22	4					76.7
MW-TP-02	8	GP	5.1				50.1	46.5	3.4	NP	NP					
MW-TP-03	3	ML	8	92.5					69.3						0.32	
MW-TP-04	3	GC	4				44.5	30.3	25.2	24	8					
MW-TP-10	2	GC	2.2				59.9	27.0	13.1	25	9					
MW-TP-11	6	SM	5.7				29.8	48.6	21.6	NP	NP					
MW-TP-12	6	SM	5.3	95					39.5						1.17	
MW-TP-13	8.5	SM	16.7	81					41.7	NP	NP				0.27	
MW-TP-14	6	SM	13.5	110.7					41.3						0.09	
MW-TP-16	1.5	GP-GM	3.6				70.7	22.3	7.0	NP	NP					
MW-TP-17	4	SM	4.1				35.6	38.8	25.6	NP	NP					
MW-TP-18	3	CL	20.1	86.7					85.1						0.07	
MW-TP-19	6	ML	8.1	88.6					65.1						1.4	
MW-TP-20	3.5	ML	21.8	92.9					83.7						0.44	
MW-TP-21	3.5	CL	15.7	86.6			0.0	17.4	82.6	38	14				0.23	
MW-TP-22	2	CL	7.5				13.8	20.7	65.5	29	13					
MW-TP-23	1.5	GC	4.6				33.6	33.5	32.9	24	7					
MW-TP-28	3.5	CL-ML	6.8	107					79.2	25	18				0.47	
MW-TP-29	2	SC	4.7				23.4	45.3	31.3	30	15					
MW-TP-30	4	CL	14.2	126.6					92.5	35	15				0.4	



	Sample Location	Depth (ft)	LL (%)	PL (%)	PI (%)	Fines (%)	Classification
●	**MW-TP-01**	**7.0**	**22**	**18**	**4**	**10.9**	**Poorly Graded GRAVEL with silt and sand**
⊠	**MW-TP-02**	**8.0**	**NP**	**NP**	**NP**	**3.4**	**Poorly Graded GRAVEL with sand**
▲	**MW-TP-04**	**3.0**	**24**	**16**	**8**	**25.2**	**Clayey GRAVEL with sand**
★	**MW-TP-10**	**2.0**	**25**	**16**	**9**	**13.1**	**Clayey GRAVEL with sand**
⊙	**MW-TP-11**	**6.0**	**NP**	**NP**	**NP**	**21.6**	**Silty SAND with gravel**
✿	**MW-TP-13**	**8.5**	**NP**	**NP**	**NP**	**41.7**	**Silty SAND**
○	**MW-TP-16**	**1.5**	**NP**	**NP**	**NP**	**7.0**	**Poorly Graded GRAVEL with silt and sand**
△	**MW-TP-17**	**4.0**	**NP**	**NP**	**NP**	**25.6**	**Silty SAND with gravel**

GeoStrata

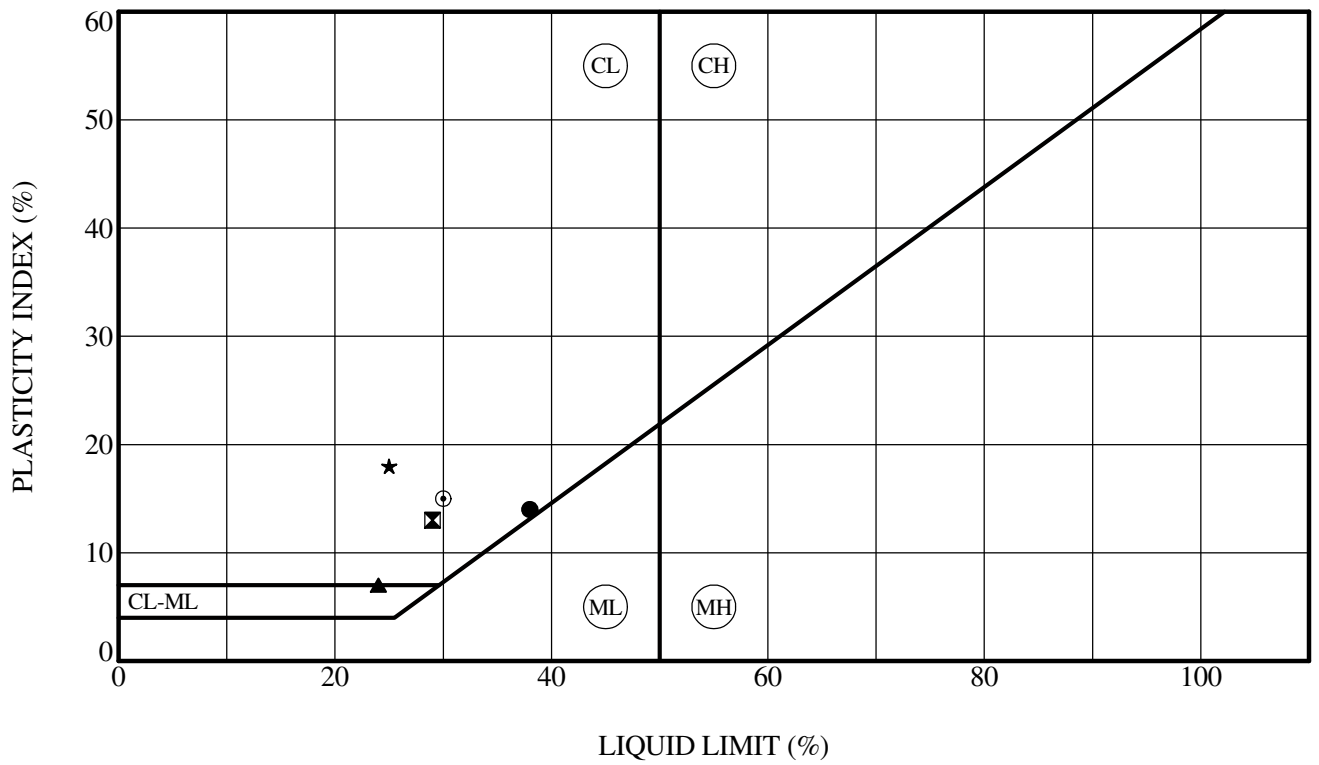
ATTERBERG LIMITS' RESULTS - ASTM D 4318

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 2

C_ATTERBERG 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	LL (%)	PL (%)	PI (%)	Fines (%)	Classification
●	**MW-TP-21**	**3.5**	**38**	**24**	**14**	**82.6**	**Lean CLAY with sand**
⊠	**MW-TP-22**	**2.0**	**29**	**16**	**13**	**65.5**	**Sandy Lean CLAY**
▲	**MW-TP-23**	**1.5**	**24**	**17**	**7**	**32.9**	**Clayey GRAVEL with sand**
★	**MW-TP-28**	**3.5**	**25**	**7**	**18**	**79.2**	**Sandy Silty CLAY**
⊙	**MW-TP-29**	**2.0**	**30**	**15**	**15**	**31.3**	**Clayey SAND with gravel**

GeoStrata

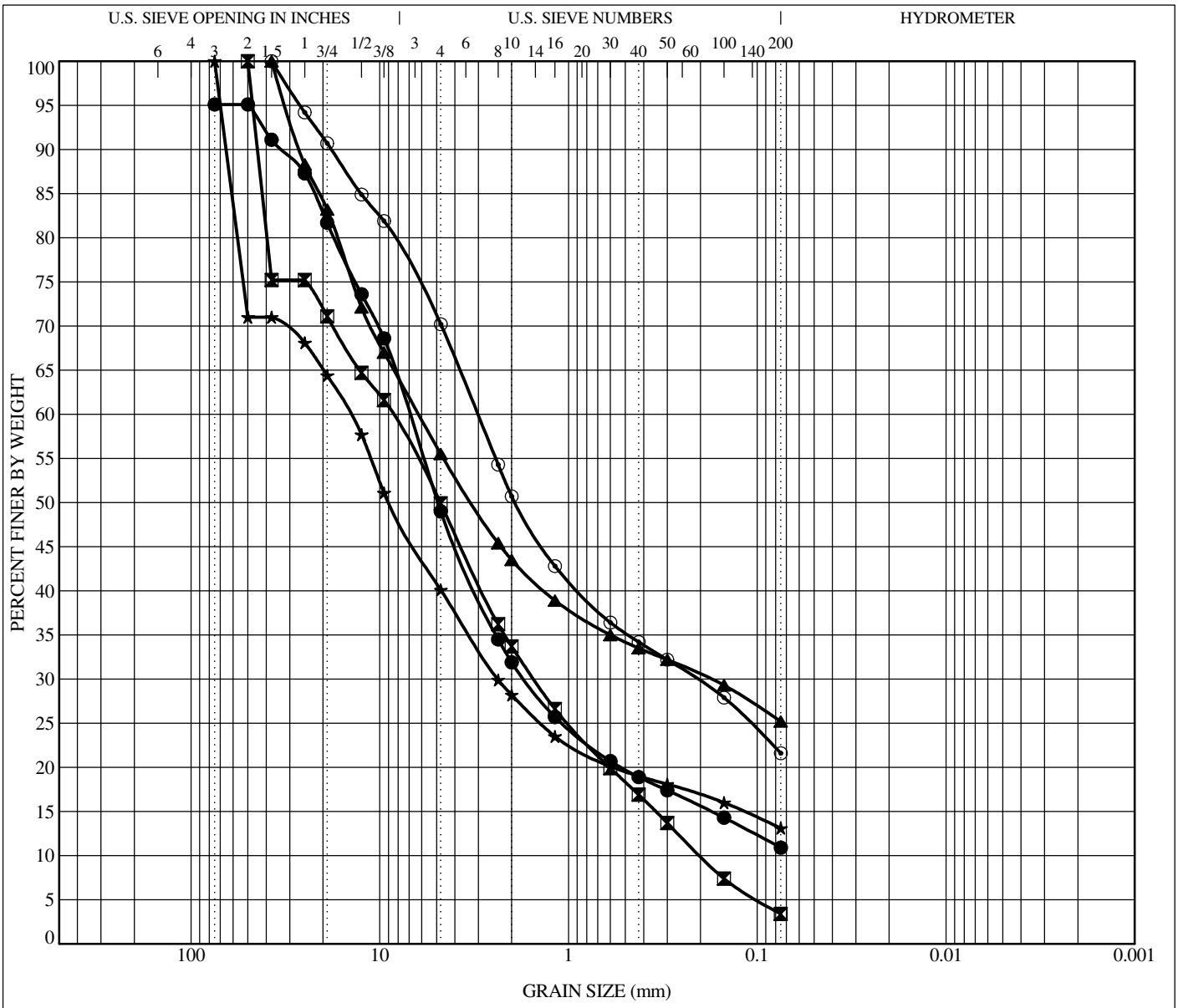
ATTERBERG LIMITS' RESULTS - ASTM D 4318

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 3

C_ATTERBERG 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Sample Location	Depth	Classification	LL	PL	PI	Cc	Cu
●	**MW-TP-01**	**7.0**	**Poorly Graded GRAVEL with silt and sand**	**22**	**18**	**4**	**6.62**	**112.27**
⊠	**MW-TP-02**	**8.0**	**Poorly Graded GRAVEL with sand**	**NP**	**NP**	**NP**	**1.34**	**43.27**
▲	**MW-TP-04**	**3.0**	**Clayey GRAVEL with sand**	**24**	**16**	**8**		
★	**MW-TP-10**	**2.0**	**Poorly Graded GRAVEL with clay and sand**	**25**	**16**	**9**		
⊙	**MW-TP-11**	**6.0**	**Silty SAND with gravel**	**NP**	**NP**	**NP**		

	Sample Loctaion	Depth	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**MW-TP-01**	**7.0**	**75**	**7.009**	**1.701**		**46.1**	**38.1**	**10.9**	
⊠	**MW-TP-02**	**8.0**	**50**	**8.641**	**1.519**	**0.2**	**50.1**	**46.5**	**3.4**	
▲	**MW-TP-04**	**3.0**	**37.5**	**6.23**	**0.177**		**44.5**	**30.3**	**25.2**	
★	**MW-TP-10**	**2.0**	**75**	**14.432**	**2.376**		**59.9**	**27.0**	**13.1**	
⊙	**MW-TP-11**	**6.0**	**37.5**	**3.033**	**0.21**		**29.8**	**48.6**	**21.6**	

GeoStrata

GRAIN SIZE DISTRIBUTION - ASTM D422

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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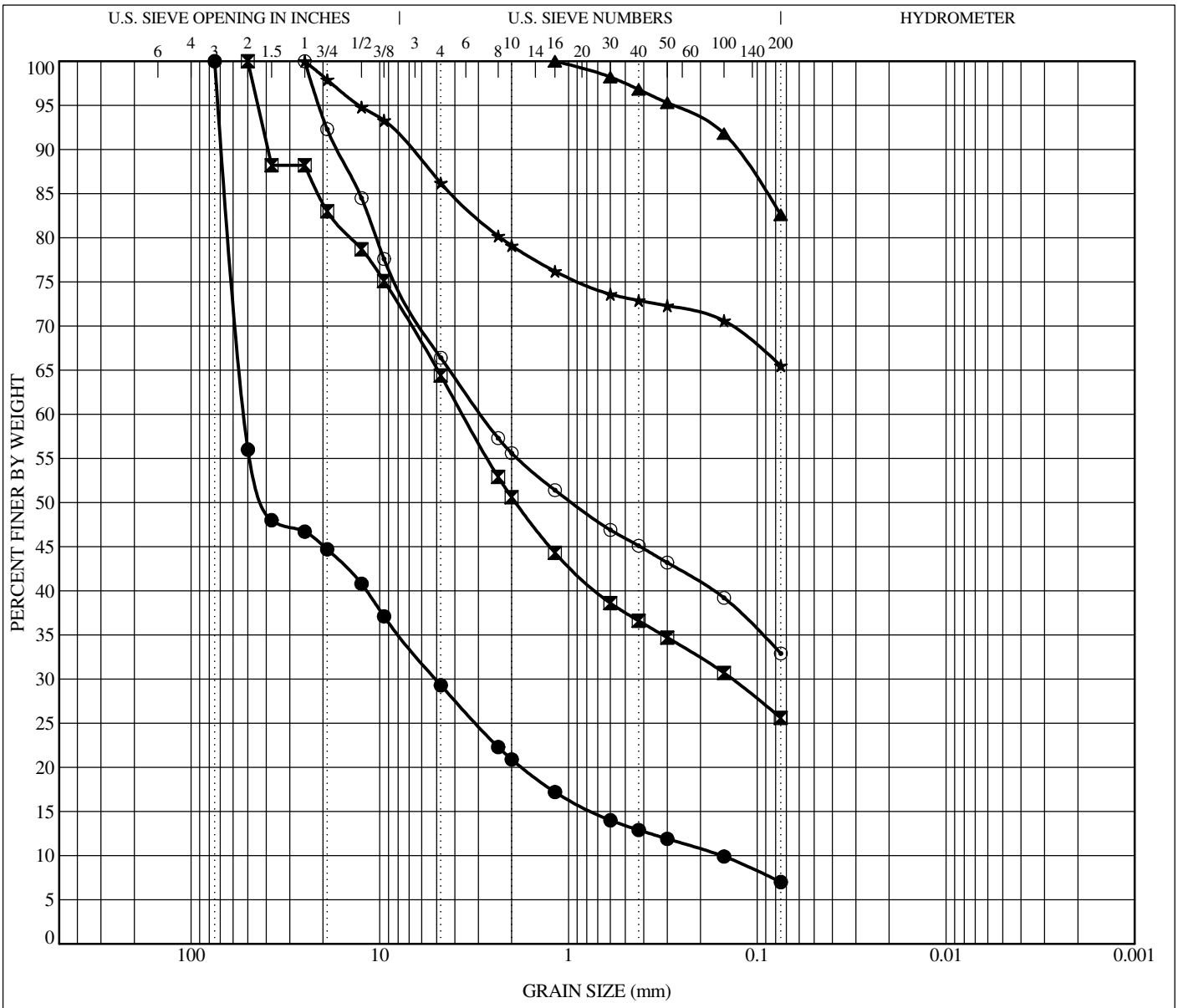
C_GSD 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Sample Location	Depth	Classification	LL	PL	PI	Cc	Cu
●	**MW-TP-16**	**1.5**	**Poorly Graded GRAVEL with silt and sand**	**NP**	**NP**	**NP**	**3.17**	**334.07**
⊠	**MW-TP-17**	**4.0**	**Silty SAND with gravel**	**NP**	**NP**	**NP**		
▲	**MW-TP-21**	**3.5**	**Lean CLAY with sand**	**38**	**24**	**14**		
★	**MW-TP-22**	**2.0**	**Sandy Lean CLAY**	**29**	**16**	**13**		
⊙	**MW-TP-23**	**1.5**	**Clayey GRAVEL with sand**	**24**	**17**	**7**		

	Sample Loctaion	Depth	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**MW-TP-16**	**1.5**	**75**	**51.877**	**5.055**	**0.155**	**70.7**	**22.3**	**7.0**	
⊠	**MW-TP-17**	**4.0**	**50**	**3.635**	**0.136**		**35.6**	**38.8**	**25.6**	
▲	**MW-TP-21**	**3.5**	**1.18**				**0.0**	**17.4**	**82.6**	
★	**MW-TP-22**	**2.0**	**25**				**13.8**	**20.7**	**65.5**	
⊙	**MW-TP-23**	**1.5**	**25**	**2.904**			**33.6**	**33.5**	**32.9**	

GeoStrata

GRAIN SIZE DISTRIBUTION - ASTM D422

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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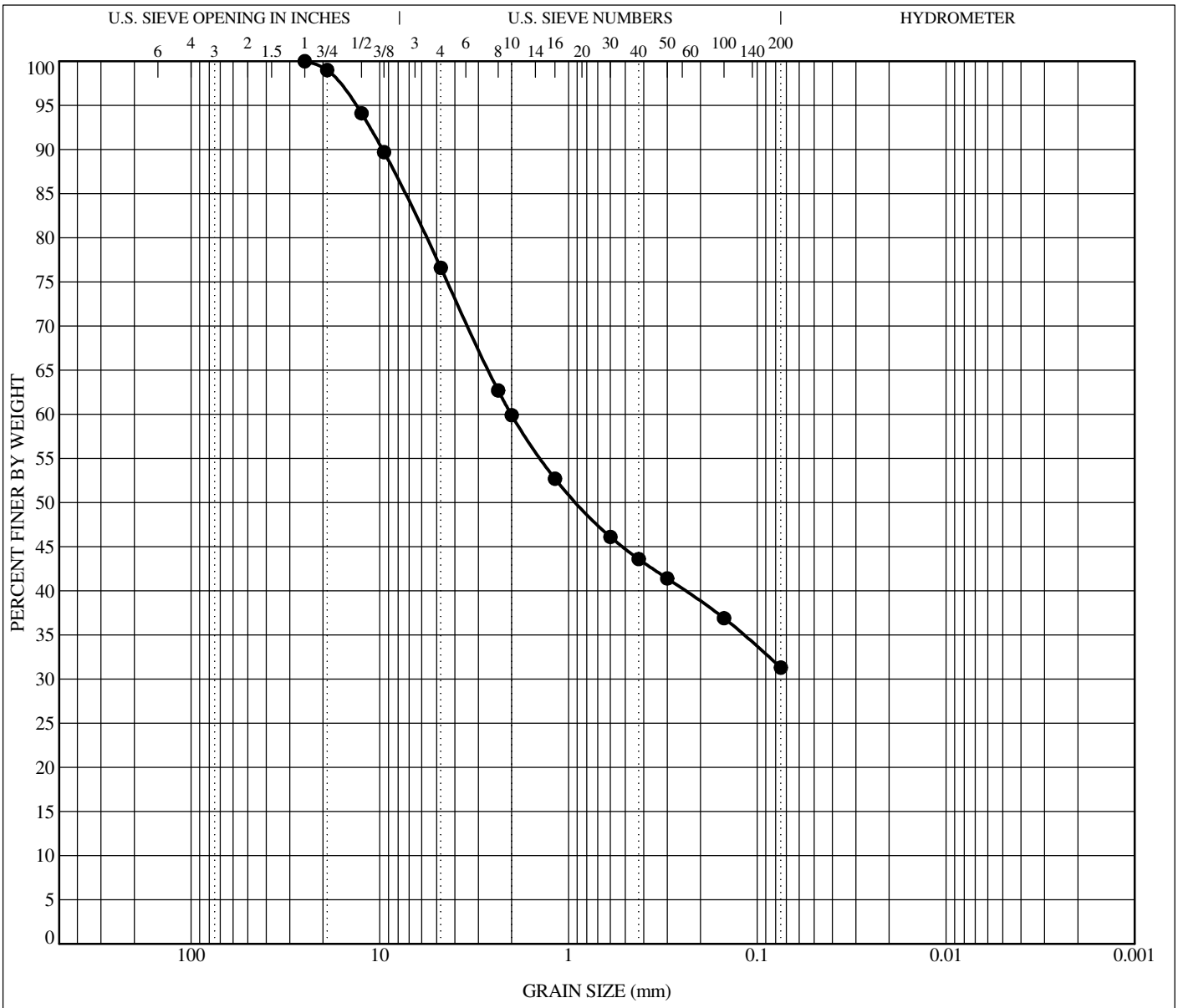
C_GSD 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Sample Location	Depth	Classification	LL	PL	PI	Cc	Cu
●	**MW-TP-29**	**2.0**	**Clayey SAND with gravel**	**30**	**15**	**15**		

	Sample Loctaion	Depth	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**MW-TP-29**	**2.0**	**25**	**2.012**			**23.4**	**45.3**	**31.3**	

GeoStrata

GRAIN SIZE DISTRIBUTION - ASTM D422

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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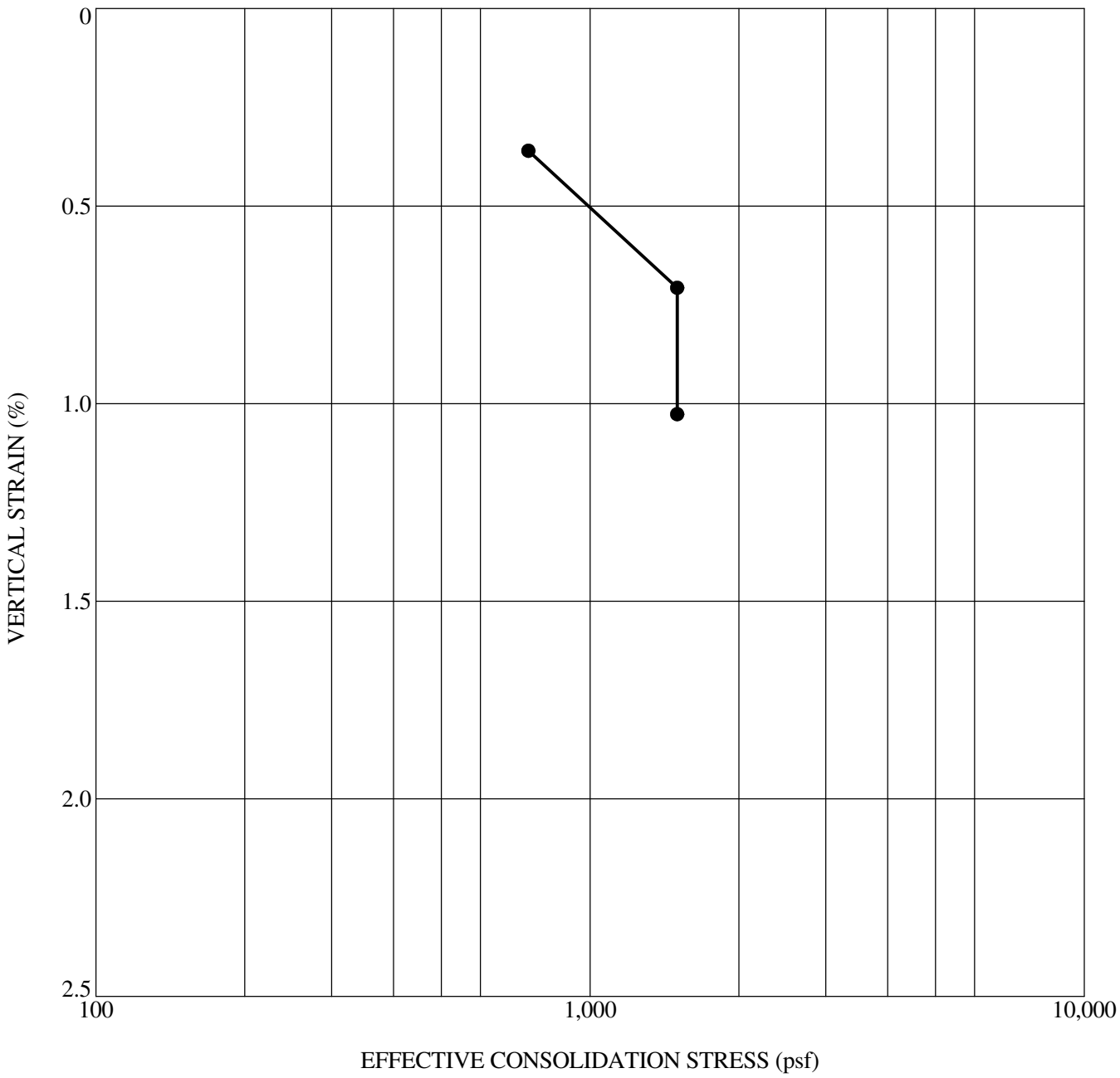
C_GSD 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-03**	**3.0**		**93**	**9**				**1500**		**0.32**

GeoStrata

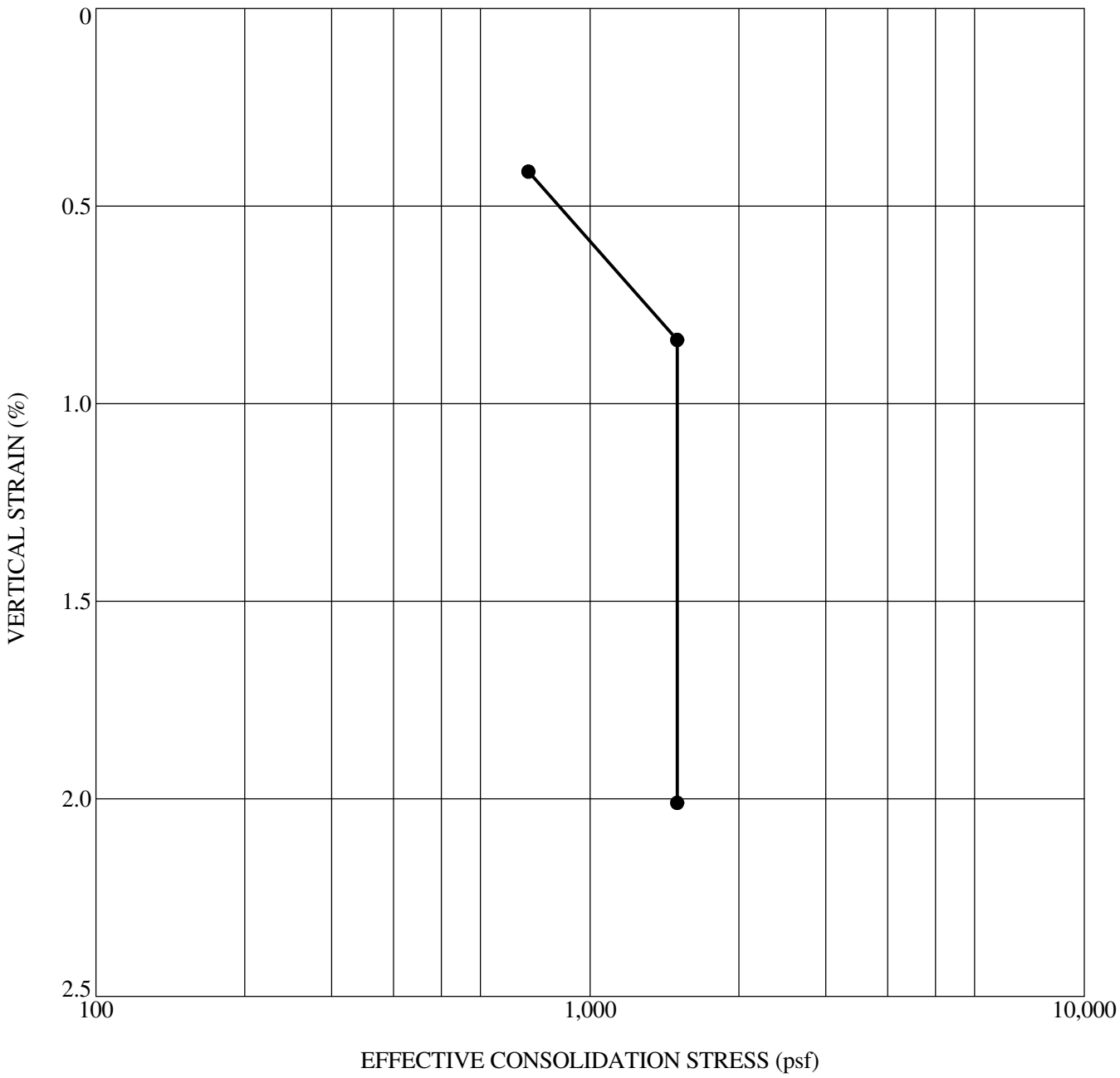
1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 7

C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-12**	**6.0**	**Silty SAND**	**95**	**7**				**1500**		**1.17**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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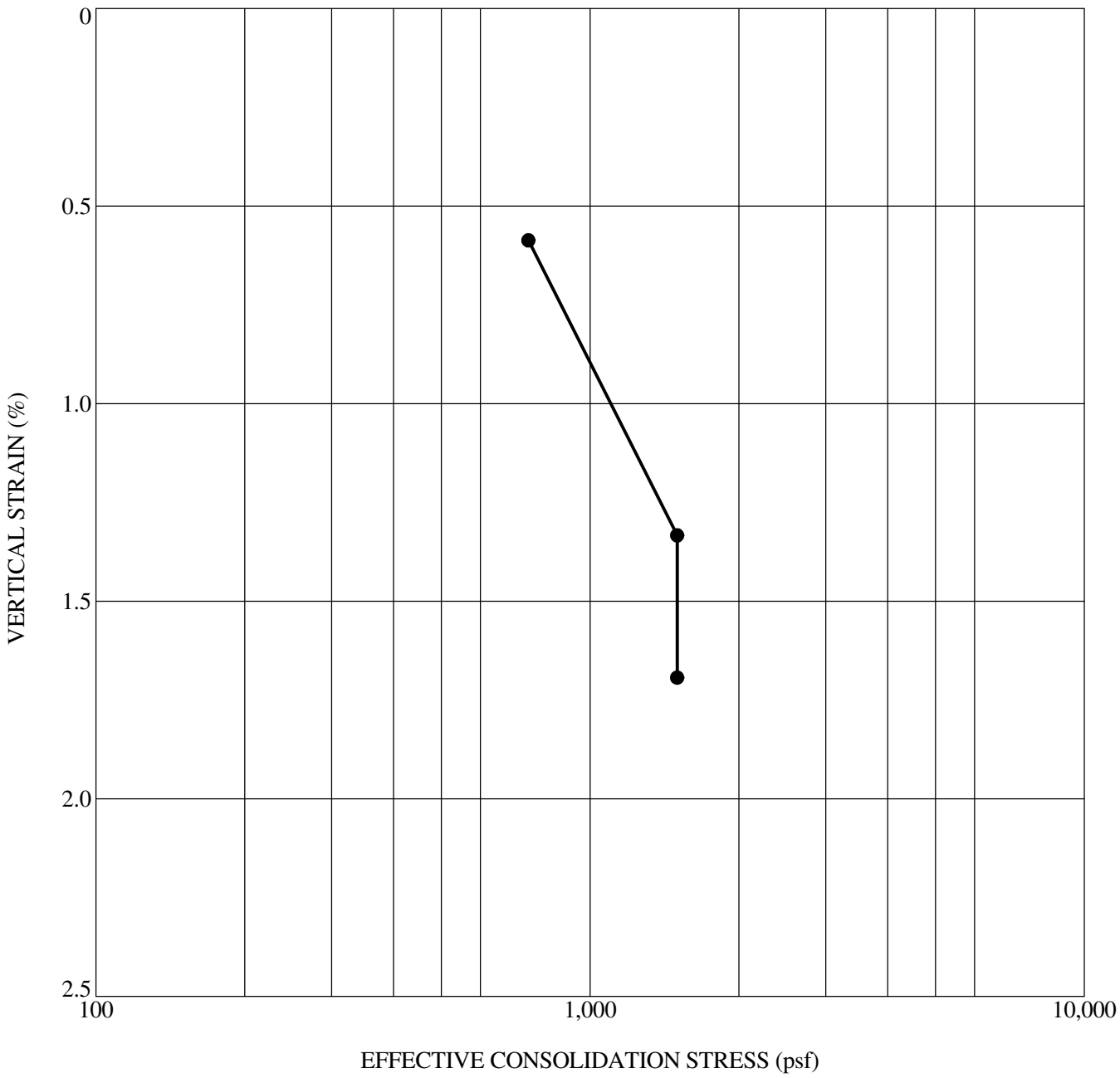
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-13**	**8.5**	**Silty SAND**	**81**	**17**				**1500**		**0.27**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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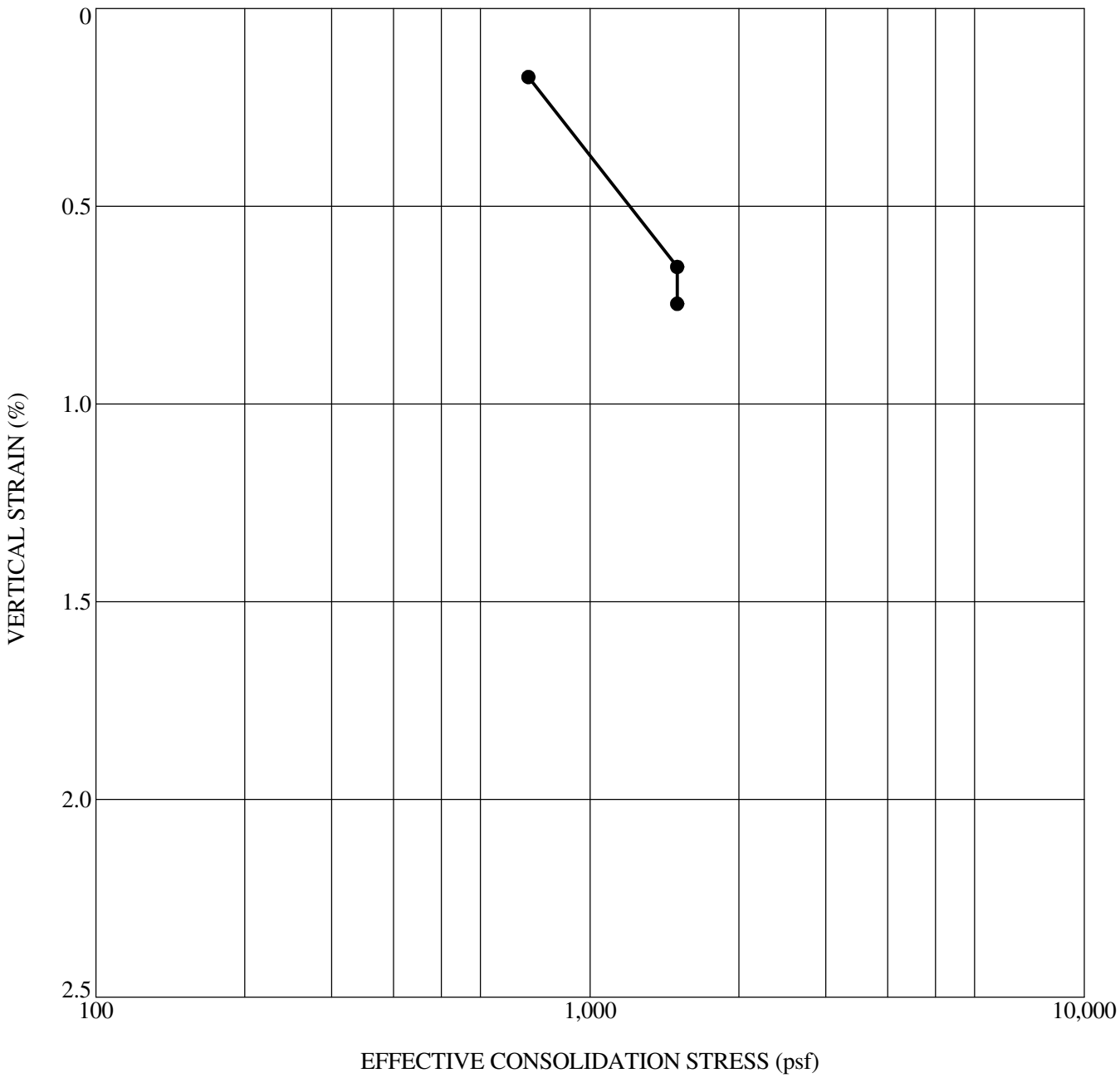
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-14**	**6.0**	**Silty SAND with gravel**	**98**	**14**				**1500**		**0.09**

GeoStrata

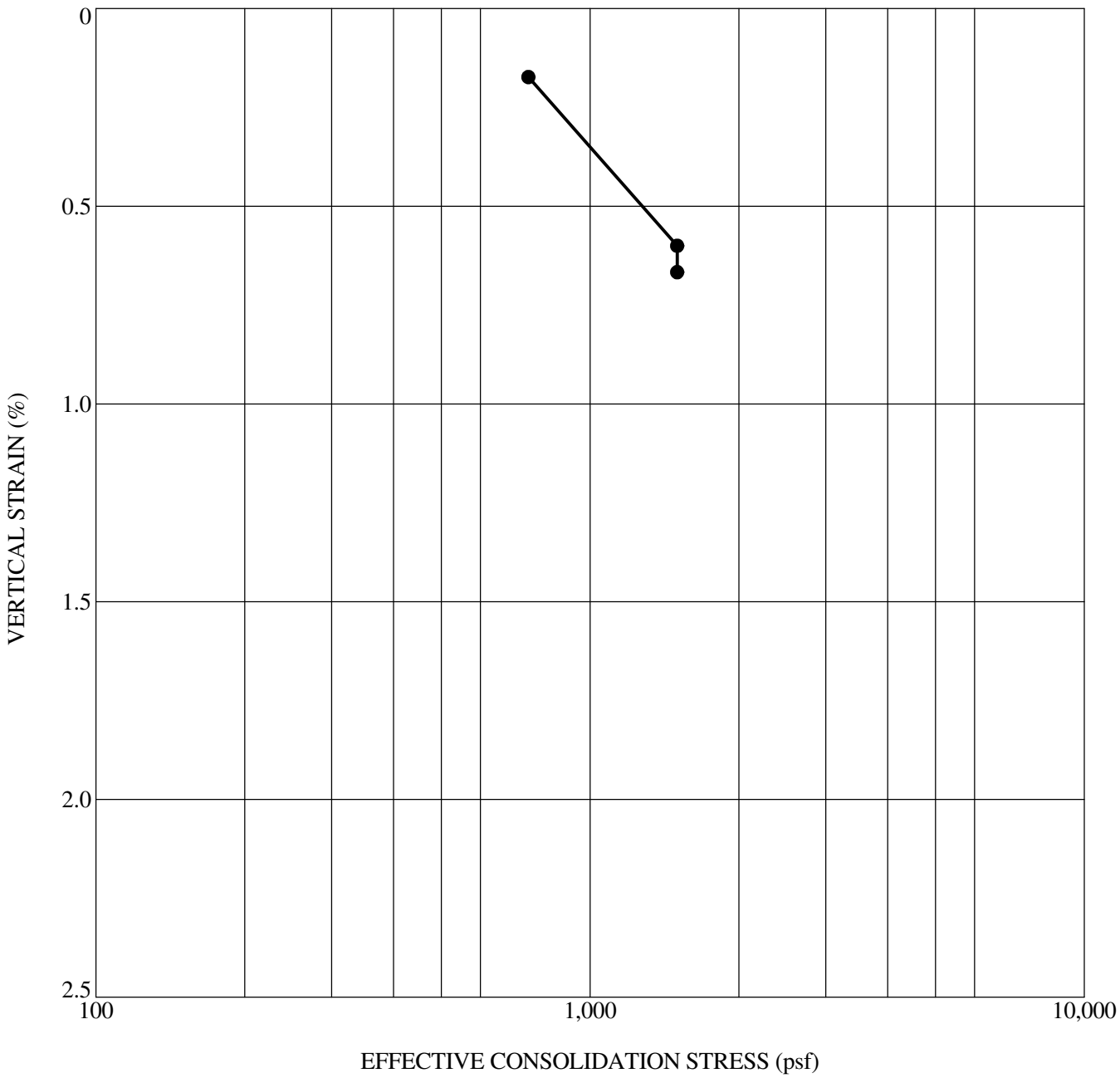
1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 10

C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-18**	**3.0**	**Lean CLAY with sand**	**87**	**20**				**1500**		**0.07**

GeoStrata

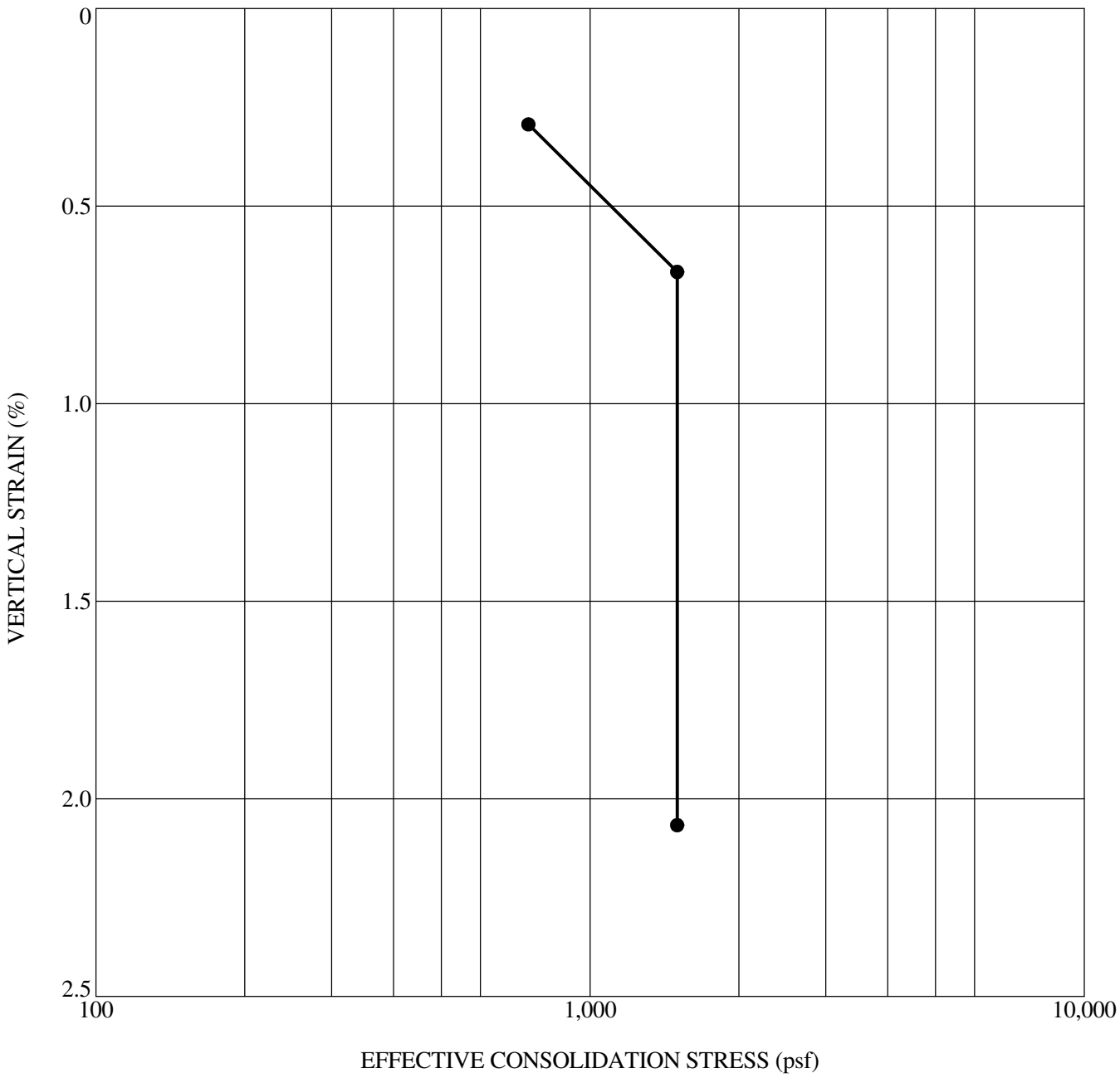
1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 11

C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-19**	**6.0**	**Sandy SILT**	**89**	**8**				**1500**		**1.40**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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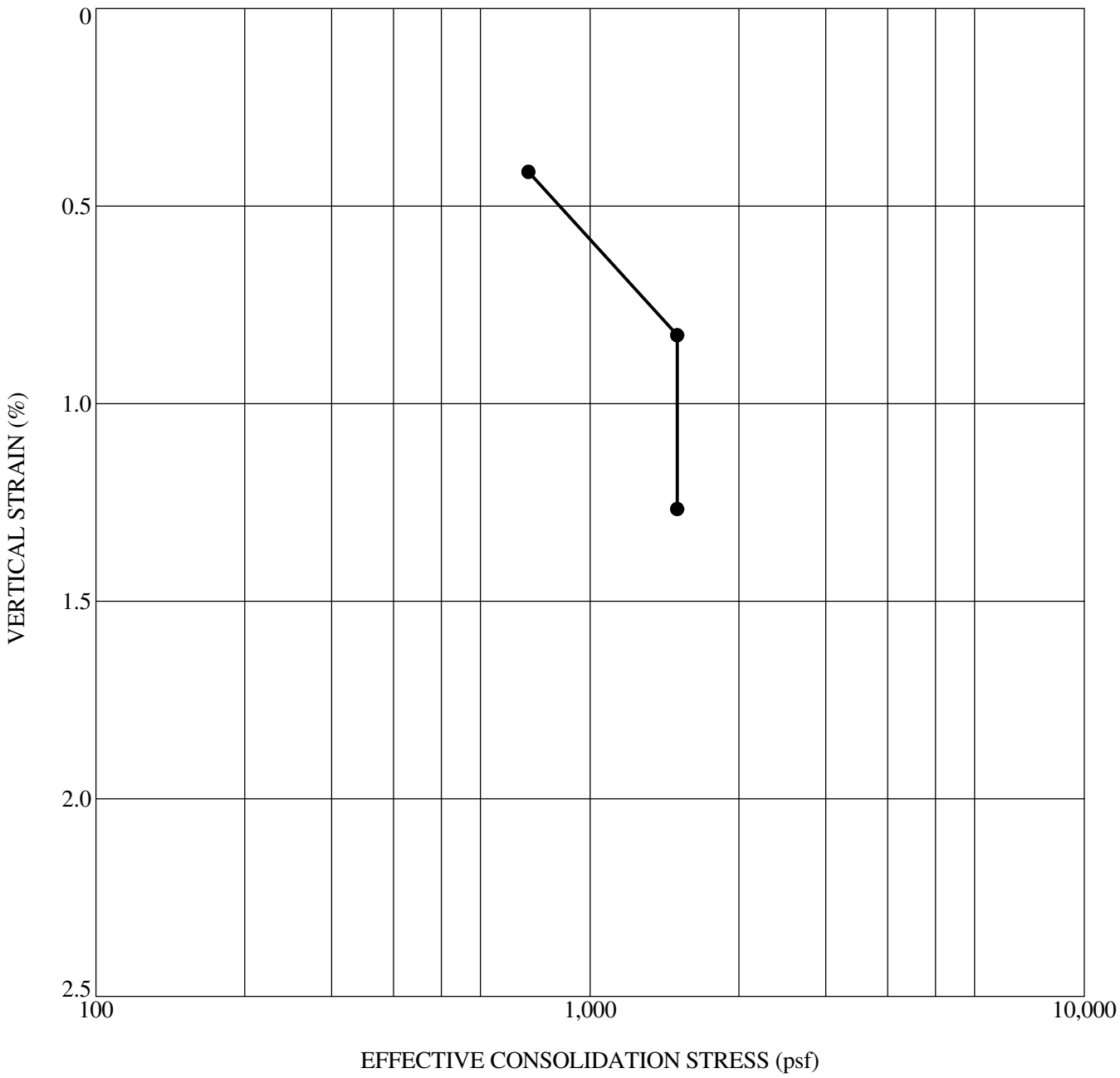
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-20**	**3.5**		**93**	**22**				**1500**		**0.44**

GeoStrata

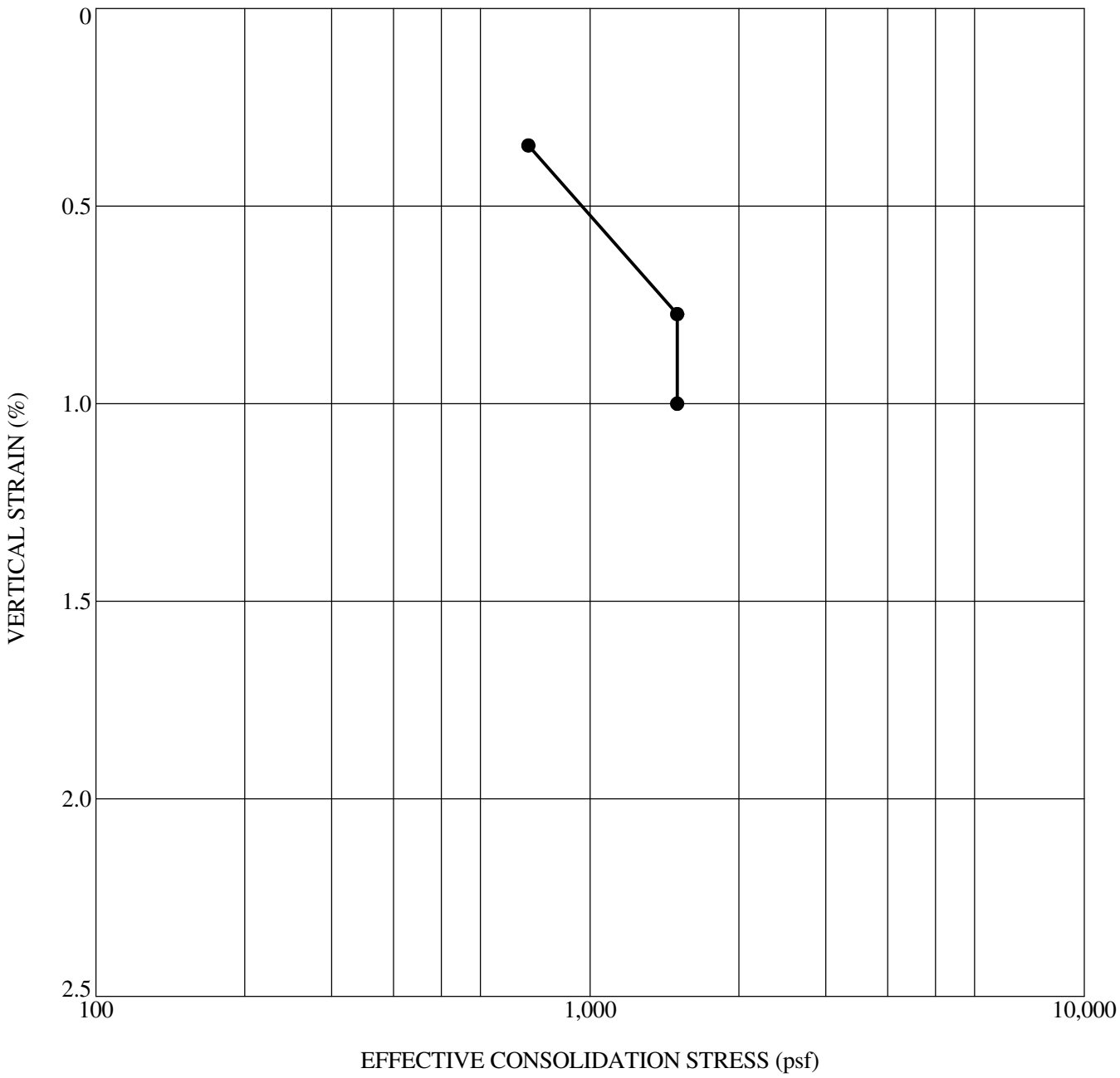
1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 13

C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-21**	**3.5**	**Lean CLAY with sand**	**87**	**16**				**1500**		**0.23**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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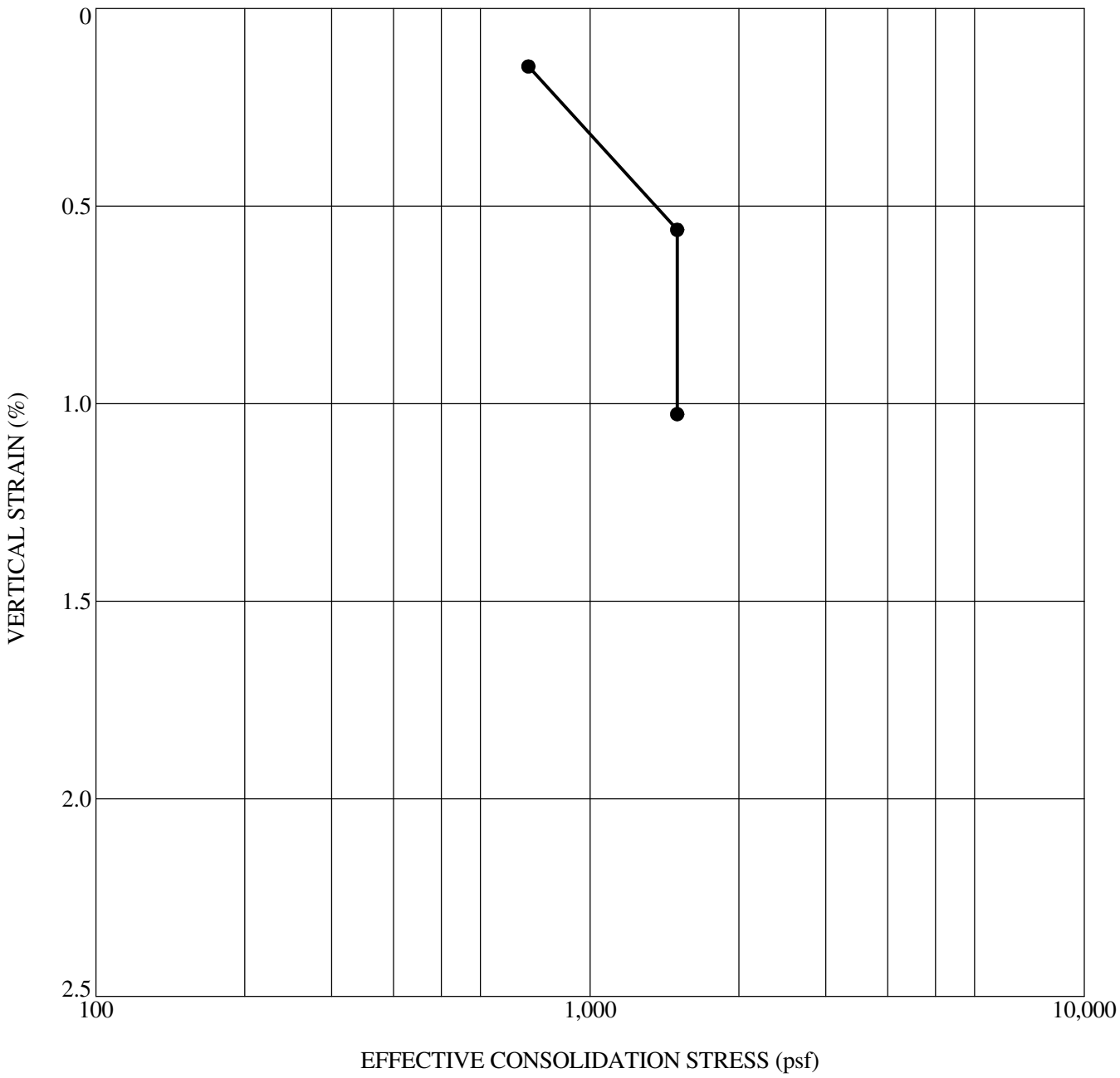
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-28**	**3.5**	**Sandy Silty CLAY**	**107**	**7**				**1500**		**0.47**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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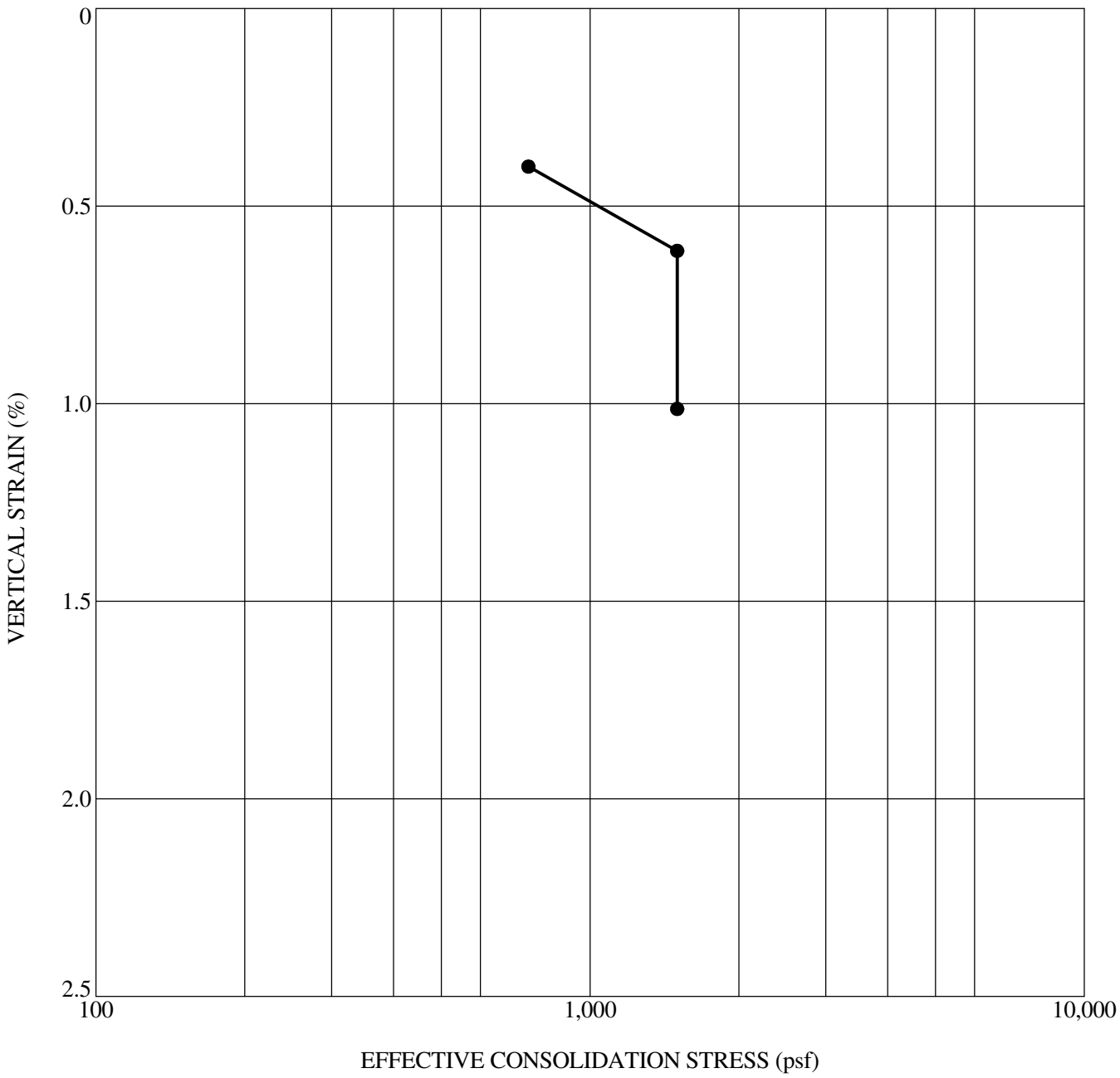
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	C'_c	C'_r	OCR	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**MW-TP-30**	**4.0**	**Lean CLAY**	**103**	**24**				**1500**		**0.40**

GeoStrata

1-D CONSOLIDATION/SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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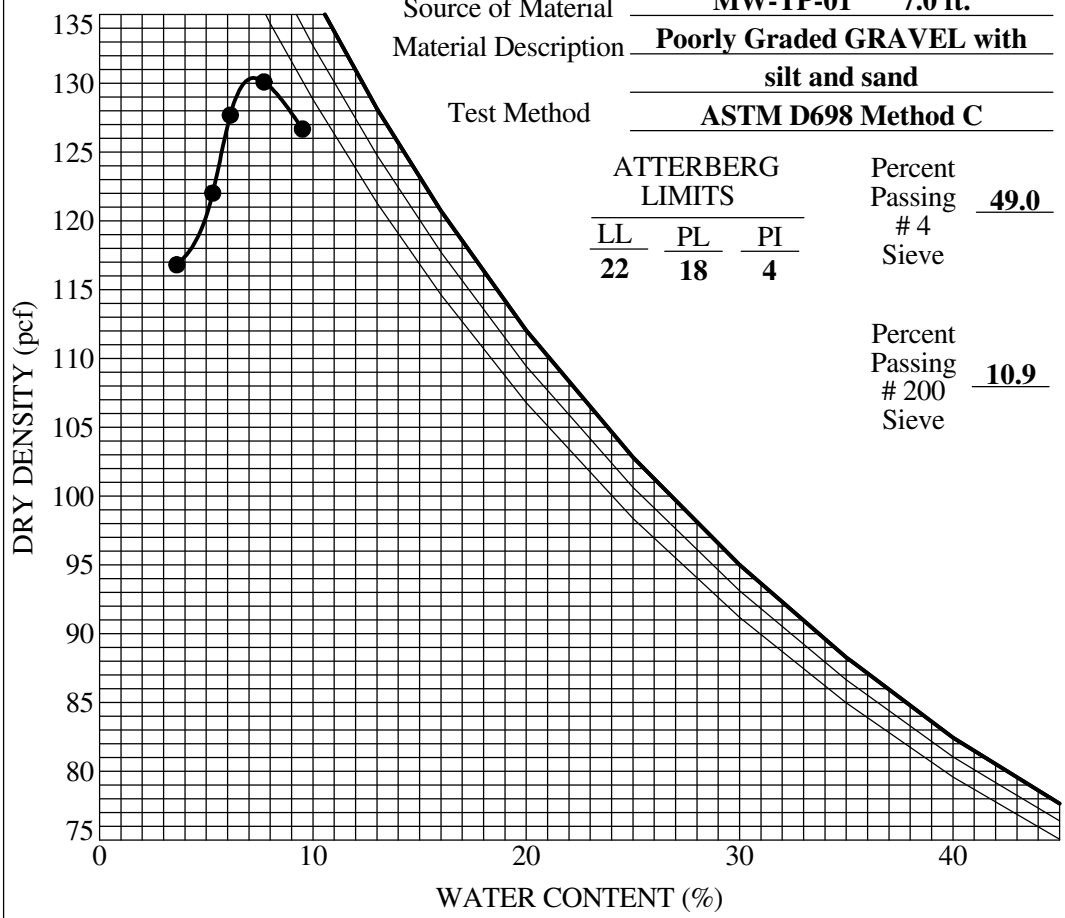
C_CONSOL SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21



Source of Material	MW-TP-01 7.0 ft.
Material Description	Poorly Graded GRAVEL with silt and sand
Test Method	ASTM D698 Method C

ATTERBERG LIMITS

LL	PL	PI
22	18	4

Percent Passing # 4 Sieve: 49.0

Percent Passing # 200 Sieve: 10.9

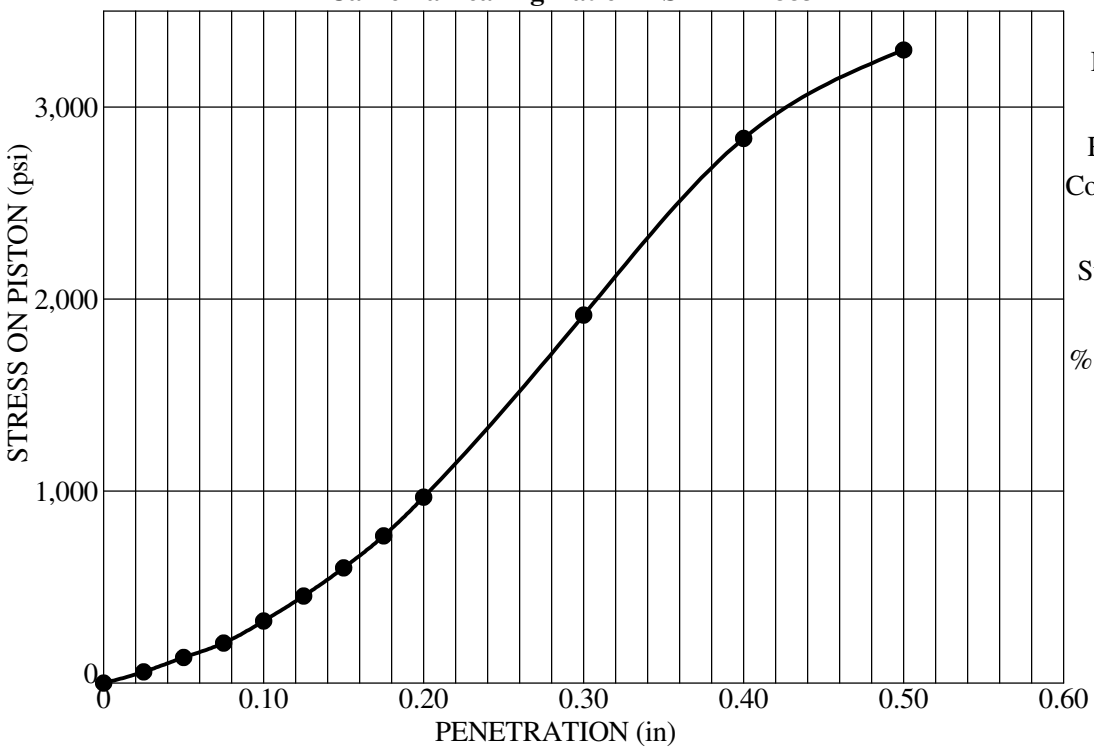
TEST RESULTS

Maximum Dry Density	132.0 (pcf)
Optimum Water Content	7.0 (%)
Percent Rock	18.0 (%)
Corrected Maximum Dry Density	136.3 (pcf)
Corrected Optimum Water Content	6.1 (%)

Curves of 100% Saturation for Specific Gravity Equal to:

2.60, 2.70, 2.80

Califonia Bearing Ratio - ASTM D 1883



Dry Density	132.0 (pcf)
Relative Compaction	100 (%)
Surcharge	51 (psf)
% Standard CBR	76.70
Swell	-0.20 (%)

GeoStrata

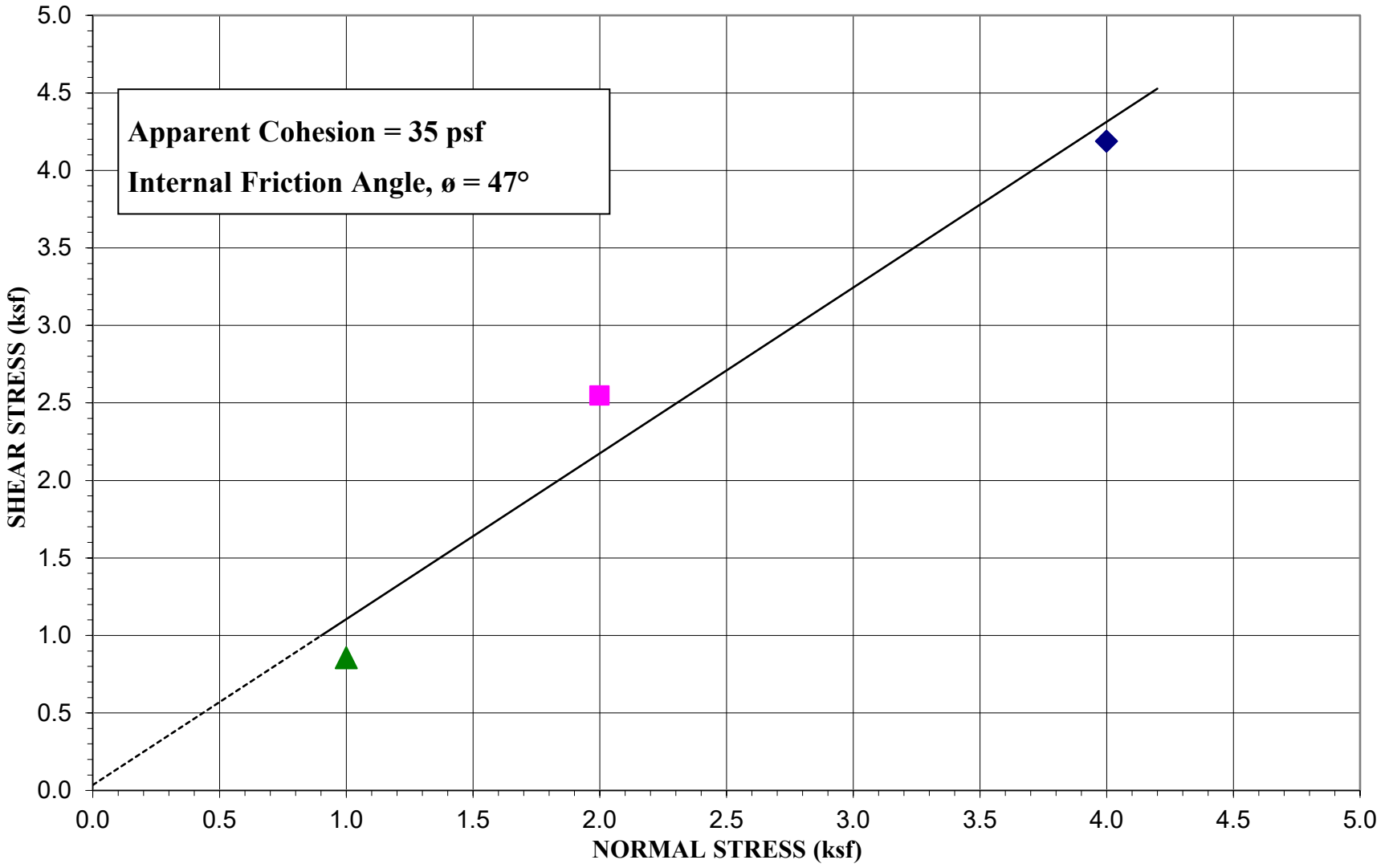
COMPACTION AND CBR TEST

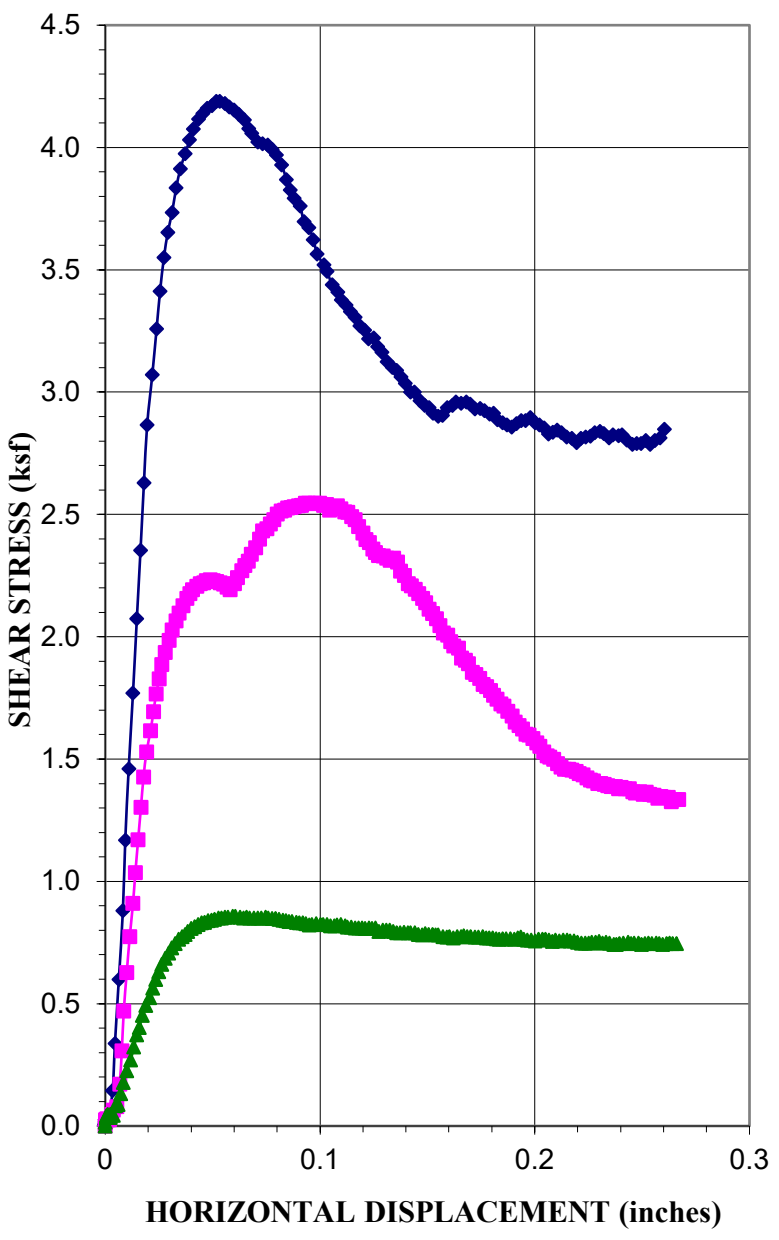
D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate
C - 17

C_COMPACTION SPLIT 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/18/21

DIRECT SHEAR TEST





Source:	MW-TP-02 at 8 feet
Type of Test:	Consolidated Drained/Saturated

Test No. (Symbol)	**1 (◆)**	**2 (■)**	**3 (▲)**
Sample Type	Remolded		
Initial Height, in.	1.006	1.018	1.093
Diameter, in.	2.5	2.5	2.5
Dry Density Before, pcf	101.5	100.2	93.6
Dry Density After, pcf	103.3	102.0	95.2
Moisture % Before	8.4	11.2	8.6
Moisture % After	21.0	21.1	23.0
Saturation, % Before	35.1	45.7	29.8
Saturation, % After	92.6	90.0	82.7
Normal Load, ksf	4.0	2.0	1.0
Shear Stress, ksf	4.19	2.55	0.86
Strain Rate	0.00333 IN/MIN		

Sample Properties	
Cohesion, psf	35
Friction Angle, ϕ	47
Liquid Limit, %	NP
Plasticity Index, %	NP
Percent Gravel	50
Percent Sand	46
Percent Passing No. 200 sieve	3.4
Classification	GP

PROJECT: Micron Property

PROJECT NO.: **589-100**

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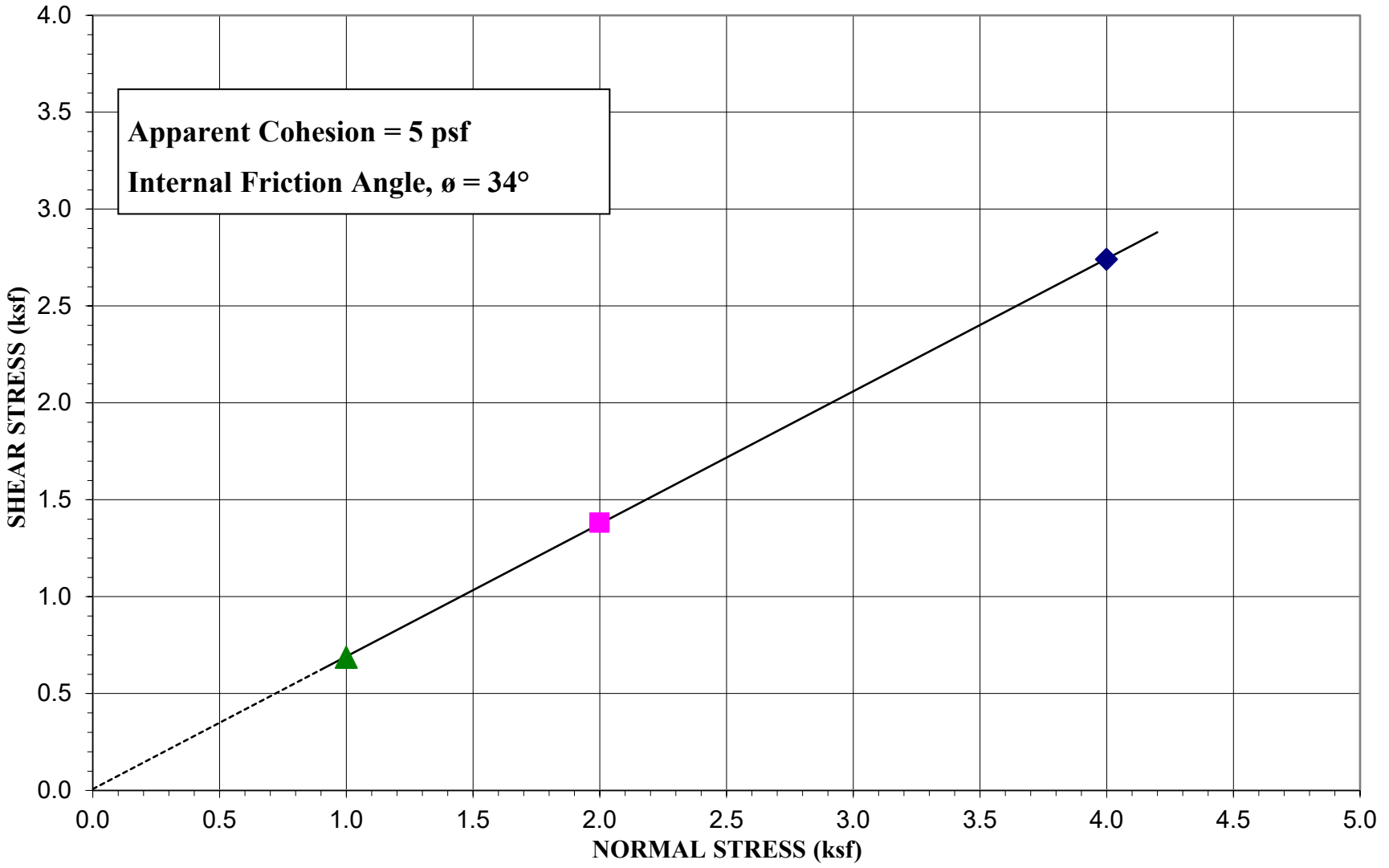
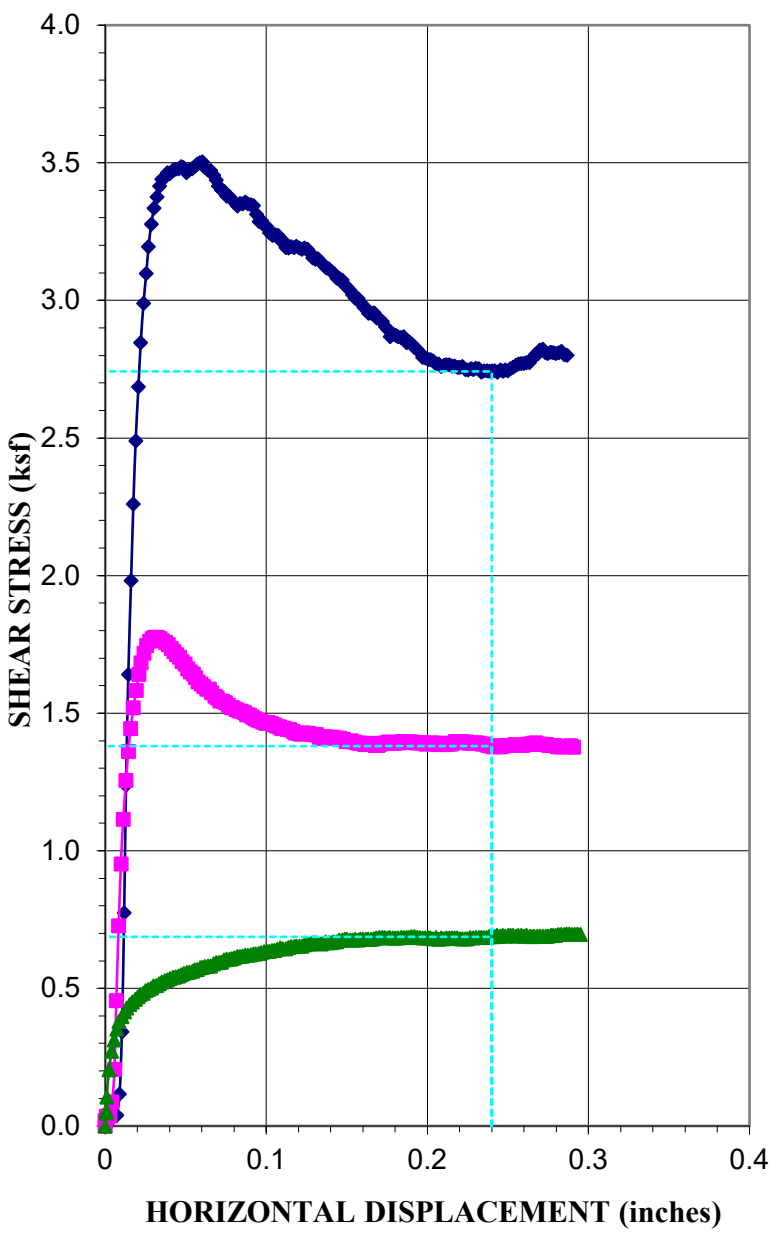
Plate C-18

DIRECT SHEAR TEST





Sample Location:	MW-TP-11 at 6 feet
Type of Test:	Consolidated Drained/Saturated

Test No. (Symbol)	**1 (◆)**	**2 (■)**	**3 (▲)**
Sample Type	Remolded		
Initial Height, in.	0.829	0.835	0.949
Diameter, in.	2.5	2.5	2.5
Dry Density Before, pcf	118.8	118.0	103.1
Dry Density After, pcf	121.2	120.3	105.1
Moisture % Before	9.9	13.1	10.8
Moisture % After	15.7	16.5	19.2
Saturation, % Before	67.2	86.2	47.3
Saturation, % After	114.2	116.7	89.0
Normal Load, ksf	4.0	2.0	1.0
Shear Stress, ksf	2.74	1.38	0.69
Strain Rate	0.003333 IN/MIN		

Sample Properties	
Cohesion, psf	5
Friction Angle, ϕ	34
Liquid Limit, %	NP
Plasticity Index, %	NP
Percent Gravel	29.8
Percent Sand	48.7
Percent Passing No. 200 sieve	21.6
Classification	SM

PROJECT: Micron Property

PROJECT NO.: **589-100**

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Plate C-19

APPENDIX D

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals' plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for information purposes only.* To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer's services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration. Confront the risk of moisture infiltration* by including building-envelope or mold specialists on the design team. *Geotechnical engineers are not building-envelope or mold specialists.*

GEOPROFESSIONAL BUSINESS ASSOCIATION

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GeoStrata

Geotechnical Investigation

Micron Property – Highland Emerald and Single Family

Approximately 500 West and State Road 92
Lehi, Utah

January 27, 2021

Prepared For:

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Preliminary Geotechnical Investigation
Micron Property Highland Single Family 128-Acre Portion
Approximately 500 West and State Road 92
Lehi, Utah

GeoStrata Job No. 589-100

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1.0 EXECUTIVE SUMMARY

This report presents the preliminary findings of a geotechnical investigation conducted for 128-acres of the Micron Property at approximately 500 West and State Road 92, in Lehi and Draper, of Utah County. We understand that this section of the proposed development consists of medium to low density residential development. The development will include different structures, with "low" including single family residences 1 to 2 stories in height with basements (if feasible), and "medium" consisting of townhouse and duplex structures. The development for this section will be constructed across 128 acres. We anticipate footing loads on the order of 2 to 4 kips per lineal foot and column loads of up to 20 kips. The purposes of this investigation were to assess the nature and engineering properties of the subsurface soils at the site and to provide recommendations for general site grading and the design and construction of foundations, slabs-on-grade, and exterior concrete flatwork. The area of this section of the Micron Property contains some geologic hazards that have not been addressed in this report. All recommendations and conclusion in this report are consisted preliminary.

Based on the subsurface conditions encountered at the site, it is our opinion that the subject site is suitable for the proposed development provided that the recommendations contained in this report are incorporated into the design and construction of the project.

As a part of this investigation, subsurface soil conditions were explored by advancing 43 exploratory test pits depths ranging from 6 to 14 feet below the existing site grade. Based on the results of our field observations as well as on our review of applicable surficial geologic maps, the site is overlain partially by approximately 1 to 1½ feet of topsoil covered a majority of the site. Underlying the topsoil, we encountered deposits mapped by Biek (2005) as consisting of Upper Pleistocene-aged materials deposits. Groundwater was not encountered in any of the completed test pits for the section.

Due to the presence of dense granular soils (sands and gravels) and fine-grained soils with low potential for collapsible soil present at the proposed buildings elevations (between 2 to 8 feet below the existing ground surface), strip and spread footings can be placed entirely on non-collapsible undisturbed native soils. If soil at the foundation elevation appears to have a hydro-collapsible nature (pinholes, low natural density, etc.), collapse testing in the laboratory should be performed on a lot-by-lot basis to confirm the that potential collapse will not adversely affect the proposed construction. Foundation elements should not be founded on collapsible soils, and if these soils are encountered, they should be over-excavated according to the results of lot-specific laboratory collapse testing. According to our preliminary soil collapse testing, structural fill below footings will not be required. The site may then be brought back up to design grade using properly placed and compacted structural fill. Strip and spread footings should be a minimum of 20 and 30 inches wide, respectively. Exterior shallow footings and spread footings should be embedded at least 30 inches below final grade for frost protection and confinement. Interior strip shallow footings not susceptible to frost conditions should be embedded at least 18 inches for confinement. Conventional strip and spread footings founded on a native granular soil or on structural fill may be proportioned for a maximum net allowable bearing capacity of **2,000 pounds per square foot (psf)**.

Additional recommendations concerning other aspects of the proposed construction may be found in the body of this report.

IMPORTANT INFORMATION ABOUT THIS GEOTECHNICAL-ENGIEERING REPORT:

Do not rely on the executive summary. The executive summary omits a number of details, any one of which could be crucial. Read and refer to the report in full. Do not rely on this report if this report was prepared for a different client, different project, different purpose, different site, and/or before important events occurred at the site or adjacent to it. All recommendations in this report are confirmation dependent. A two-page document prepared by GBA explains these items with greater detail and can be found in Appendix D (Plates D-1 and D-2).

2.0 INTRODUCTION

2.1 PURPOSE AND SCOPE OF WORK

This report presents the results of a preliminary geotechnical investigation conducted for 128-acres of the property termed the Micron Property located in Lehi on the border of Highland and slightly in the city of Draper at approximately 500 West and State Road 92 in Lehi and Draper, in Utah County, Utah. The purposes of this investigation were to assess the nature and engineering properties of the subsurface soils at the site and to provide recommendations for general site grading and the design and construction of foundations, slabs-on-grade, and exterior concrete flatwork.

The scope of work completed for this study included a site reconnaissance, subsurface exploration, soil sampling, laboratory testing, engineering analyses, and preparation of this report. Our services were performed in accordance with our proposal and signed authorization, dated November 18, 2020.

The recommendations contained in this report are subject to the limitations presented in the LIMITATIONS section of this report (Section 7.1).

2.2 PROJECT DESCRIPTION

Due to the size of the Micron Property project, we have divided the property into smaller sections containing similar proposed development types for the purposes of our investigation. This preliminary geotechnical investigation has been completed for Highland Emerald Single-Family Lots, which represents the eastern-most 128-acres of the proposed building portions of the development. The property is located at approximately 500 West and State Road 92, in Lehi and Draper, Utah County, Utah (see Plate A-1, *Site Vicinity Map*). Plate A-2, *Site Section Map*, shows how we have divided up the buildable portions of the Micron property. Based on information received from the Client, we understand that steep and hard to access portions of the Micron Property will not be developed, and the Draper portion of the site has not been fully investigated due to changing plans of development and ability to obtain proper permits. The subject 128-acres portion of the Micron Property will be developed with low density (single family residential lots) and medium density (small acre single family lots to townhomes) development. The resulting construction will include one- to two-story, wood-framed single-family residences founded on conventional spread and strip footings and one- to three-story townhouse structures founded on conventional spread and strip footings. If larger structures are

planned, then GeoStrata should be consulted and our recommendations should be updated if necessary. Each of these types of structures are anticipated to have basements or crawlspaces if feasible. We anticipate footing loads on the order of 2 to 4 kips per lineal foot and column loads of up to 20 kips. As stated before, if the anticipated footing loads exceed assumptions or the proposed construction is different than what we have assumed, please contact GeoStrata with the updated information and allow for further analysis. Our investigation for the development will be used to provide geotechnical design parameters for construction of buildings, parking areas, driveways, and associated landscaping and utilities.

3.0 METHOD OF STUDY

3.1 FIELD INVESTIGATION

As a part of this investigation, subsurface soil conditions were explored by advancing 23 exploratory test pits on the subject property (ME-TP-01 to ME-TP-18, ME-TP-21 to ME-TP-22, and ME-TP-24 to ME-TP-25). Twenty (20) additional test pits (ME-TP-26 to ME-TP-40 and ME-TP-49 to 51) that have been advanced on the adjacent phase of the Micron Property project have likewise been included in this report to provide supplemental data where appropriate. The test pits were excavated to depths ranging from 6 to 14 feet below the existing site grade. The approximate locations of the explorations are shown on Plate A-3, *Highland Emerald Single Family,* in Appendix A. Exploration points were placed to provide optimum coverage of the site in the areas of proposed residential development. Logs of the subsurface conditions, as encountered in the test pit explorations, were recorded at the time of excavation and advancement by a staff engineer current employed at GeoStrata and are presented on Plates B-1 to B-43 in Appendix B. A *Soil Symbols Description Key* used in the borehole and test pit logs is included as Plate B-44.

The test pits were excavated with a track mounted excavator. Both bulk and relatively undisturbed soil samples were obtained from the test pits. Relatively undisturbed soil samples were obtained from the test pit in the form of tube samples and block samples. All samples were transported to our laboratory for testing to evaluate engineering properties of the various earth materials observed. The soils were classified according to the *Unified Soil Classification System* (USCS) by the Geotechnical Engineer. Classifications for the individual soil units are shown on the attached Test Pit Logs, Plates B-1 to B-43 in Appendix B.

3.2 LABORATORY INVESTIGATION

Geotechnical laboratory tests were conducted on selected relatively undisturbed and bulk soil samples obtained during our field investigation. The laboratory testing program was designed to evaluate the engineering characteristics of onsite earth materials. Laboratory tests conducted during this investigation include:

- Grain Size Distribution Analysis (ASTM D422)
- Atterberg Limits (ASTM D4318)
- 1-D Collapse Consolidation Test (ASTM D2435)
- California Bearing Ratio Test (ASTM D1883)
- Direct Shear Test (ASTM D3080)

The results of laboratory tests are presented on the Test Pit Logs in Appendix B (Plates B-1 to B-43), the test result plates presented in Appendix C (Plates C-2 to C-28) and in the *Summary of Laboratory Test Results* Table (Plate C-1).

3.3 ENGINEERING ANALYSIS

Engineering analyses were performed using soil data obtained from the laboratory test results and empirical correlations from material density, depositional characteristics and classification. Appropriate factors of safety were applied to the results consistent with industry standards and the accepted standard of care.

4.0 GENERALIZED SITE CONDITIONS

4.1 SURFACE CONDITIONS

At the time of our subsurface investigation in this 128-acre portion of the Micron Property, no structures existed on the site. The only site improvements consisted of dirt roadways and fences constructed across the site. A natural drainage is located on the eastern portion of the property and was dry at the time of our investigation. This drainage terminates into a residential development to the south of the subject property. The remainder of the property slopes gently to the south (towards Utah Lake) and has a maximum topographic relief of approximately 110 feet. The subject property is bound on the east by Highland Boulevard, on the south by an established residential development as well as pair of water storage tanks, and on the west and north by undeveloped hillside property.

4.2 SUBSURFACE CONDITIONS

As previously mentioned, the subsurface soil conditions were explored at the subject property by advancing 23 exploratory test pits to depths ranging from 6 to 14 feet below the existing site grade. In addition 20 additional test pits advanced on the adjacent parcel to the north and west were likewise included in this report. Subsurface soil conditions were logged using the United Soils Classification System (USCS) at the time of the investigation and are included on the Test Pit Logs in Appendix B (Plates B-1 through B-43). The soil and moisture conditions encountered during our investigation are discussed below.

4.2.1 Soils

Based on the results of our field observations as well as on our review of applicable surficial geologic maps, the site is largely overlain by approximately 1 to 1½ feet of topsoil. Underlying the topsoil, we encountered deposits mapped by Biek (2005) as consisting largely of Pleistocene-aged materials deposits associated with the Bonneville Lake cycle. Descriptions of the soil units shown in the area are described below;

Qlsb - Lacustrine sand and silt (Upper Pleistocene) − Fine- to coarse-grained lacustrine sand and silt with minor gravel; typically, thick bedded and well sorted. This geologic soil unit is mapped at the locations of all the test pits completed in the section with test pits ME-TP-10 and 24 on the border of the adjacent soil unit (Qlgb). The soils were generally visually classified as a fine-grained Lean CLAY (CL) or Sandy SILT (ML), or a coarse-grained Silty SAND (SM) to Silty GRAVEL (GM) with varying amounts of silt, sand, and gravel. Some of the block samples

obtained from the test pits contain pinhole texture and could be moisture sensitive. A summary of our laboratory testing results completed to assess this hazard is presented in Section 4.2.3 of this report.

Qlgb, Lacustrine gravel and sand (Upper Pleistocene) − Moderately to well-sorted, moderately to well-rounded, clast-supported, pebble to cobble gravel and pebbly sand; thin to thick bedded. This geologic soil unit is mapped at the locations of ME-TP-10 and 24. These test pits are one the border of this unit and the adjacent soil unit (Qlsb). The soils consisted of coarse-grained soils.

The stratification lines shown on the enclosed test pit represent the approximate boundary between soil types USCS classifications of the soils (Plates B-1 to B-43). The actual in-situ transition may be gradual. Due to the nature and depositional characteristics of the native soils, care should be taken in interpolating subsurface conditions between and beyond the exploration locations.

4.2.2 Groundwater

Groundwater was not encountered in any of the 43 test pits assessed for this portion of the Micron Property. Seasonal fluctuations in precipitation, surface runoff from adjacent properties, or other on or offsite sources may increase moisture conditions. The observed groundwater conditions can change seasonally depending on the time of year and will impact the proposed construction. It is recommended that lowest floor slab elevation for each structure should be maintained a minimum of 3 feet above any observed groundwater conditions.

4.2.3 Collapsible Soils

Collapse (often referred to as “hydro-collapse”) is a phenomena whereby undisturbed soils exhibit volumetric strain and consolidation upon wetting under increased loading conditions. Collapsible soils can cause differential settling of structures and roadways. Collapsible soils do not necessarily preclude development and can be mitigated by over-excavating porous, potentially collapsible soils and replacing with engineered fill and by controlling surface drainage and runoff. For some structures that are particularly sensitive to differential settlement, or in areas where collapsible soils are identified at great depth, a deep foundation system should be considered.

Soils that have a potential to collapse under increased loading and moisture conditions are typically characterized by a pinhole structure and relatively low unit weights. In general,

potentially collapsible soils are observed in fine-grained soils that include clay and silt, although collapsible soils may include sandy soils. Test results of the collapse test show negligible to low collapse potential. A table of the collapse test results, depth, and test pit number are provided below. This information is also contained in Plates C-9 to C-21.

Test Pit Number	Sample Depth	Collapse Potential
ME-TP-02	3.0	0.37
ME-TP-03	5.0	-0.01
ME-TP-04	4.0	0.07
ME-TP-07	4.0	0.09
ME-TP-08	3.0	0.01
ME-TP-08	12.	0.01
ME-TP-10	5.0	0.43
ME-TP-12	4.0	0.22
ME-TP-13	11.0	0.12
ME-TP-15	3.0	0.03
ME-TP-18	3.0	0.07
ME-TP-22	3.5	0.01

Based on these lab test results, it is anticipated that no structural fill may be required under the structures that extend into fine-grained soils with a pinhole texture. The collapsible soils encountered will not present a significant risk to the foundation elements within the proposed development if the recommendations presented in this report are incorporated into the design and construction of the structures.

5.0 GEOLOGIC CONDITIONS

5.1 GEOLOGIC SETTING

The site is located at an elevation between 4,985 and 5,095 feet above mean sea level within the northern portion of Utah Valley. The Utah Valley is a deep, sediment-filled structural basin of Cenozoic age flanked by the Wasatch Range to the east and the Lake Mountains, East Tintic Mountains, and the West Hills to the West (Hintze, 1980). The Wasatch Range is the easternmost expression of pronounced Basin and Range extension in north-central Utah.

The near-surface geology of Utah Valley is dominated by sediments deposited within the last 30,000 years by Lake Bonneville (Scott and others, 1983). As the lake receded, streams began to incise large deltas formed at the mouths of major canyons along the Wasatch Range, and the eroded material was deposited in shallow lakes and marshes in the basin and in a series of recessional deltas and alluvial fans. Sediments toward the center of the valleys are predominately deep-water deposits of clay, silt and fine sand. However, these deep-water deposits are in places covered by a thin post-Bonneville alluvial cover. Surface soil units as mapped by Biek (2005) consisted of Upper Pleistocene-aged materials deposits. Based on the soil and groundwater conditions encountered during our investigation, it is considered likely that each of our test pits were terminated in the mapped deposit.

5.2 FAULTING AND SEISMICITY

The site lies within the north-south trending belt of seismicity known as the Intermountain Seismic Belt (ISB) (Hecker, 1993). The ISB extends from northwestern Montana through southwestern Utah. An active fault is defined as a fault that has had activity within the Holocene (<11ka). Based on information provided by Geologic Hazards on the Utah Geologic Hazard Portal, faults associated with the Wasatch Fault Zone (WFZ) are present to the north and west of the subject property (see Plate A-5, *Fault and Fault Special Study Area Map*). As a result, the northeastern portion of the subject 128-acre development are identified as being located within a surficial faulting special study area. As discussed previously, this portion of the property are located within Draper City limits, and as such no geotechnical recommendations were completed within this area. It is possible that a series of fault investigations including trenches across the proposed building pads may be required prior to development within the area identified on Plate A-5. However, when considering the most recently published geologic maps containing the subject site, no active faults are mapped through or immediately adjacent to the site (Black and others, 2003, and Constenius, et al., 2011). The 128-acre portion of Micron Property is located

approximately 3 miles east of the northern strand of the Provo section of the Wasatch Fault Zone. The Provo section is one of the longest sections of the Wasatch Fault Zone (Hecker, 1993) and is estimated to be approximately 43 miles long with a reported rupture length of 37 miles and a maximum potential to produce earthquakes up to magnitude (M_s) 7.5 to 7.7 (Black and others, 2003). The 128-acre portion of Micron Property is also located approximately 6.5 miles north to northeast of the mapped Utah Lake Faults and Folds (ULFF). The ULFF consists of several northeast to northwest trending faults and folds located beneath Utah Lake and are reported to have been active in the past 15 ka (Black et al, 2003). However, since the ULFF is at the bottom of a large lake these faults are poorly understood – as such, the USGS does not include ULFF in their fault database for seismic hazard analysis. Analysis of the ground shaking hazard along the Wasatch Front suggests that the Wasatch Fault Zone is the single greatest contributor to the seismic hazard in the Salt Lake City region. Each of the faults listed above show evidence of Holocene-aged movement and is therefore considered active.

Spectral responses for the Risk-Targeted Maximum Considered Earthquake (MCE_R) are shown in the table below. These values generally correspond to a one percent probability of structure collapse in 50 years for a "firm rock" site. To account for site effects, site coefficients which vary with the magnitude of spectral acceleration are used. Based on our field exploration to 14 feet and our geologic review of the site, it is our opinion that this location is best described as a Site Class C. The spectral accelerations are calculated based on the site's approximate latitude and longitude of 40.448° and -111.821˚ respectively and the Seismic Design Maps web-based application at https://seismicmaps.org/.

Description	Value
Site Class	C
S_s - MCE_R ground motion (period – 0.2s)	1.38
S_1 - MCE_R ground motion (period – 1.0s)	0.511
F_a - Site amplification factor at 1.0s	1.200
F_v - Site amplification factor at 1.0s	1.500
PGA - MCE_G peak ground acceleration	0.625
PGA_M – Site modified peak ground acceleration	0.750

It should be noted that our investigation did not include a site-specific ground motion hazard analysis and a Site Class C has been used to determine the seismic parameters presented above based on maximum depths explored of 12 feet and our geologic review. The seismic parameters

presented herein may be used for design of the proposed structures provided that structural design allows for the ground motion hazard analysis exception in ASCE 7-16 Section 11.4.8. Alternatively, GeoStrata may be contacted to complete a ground motion hazard analysis in accordance with ASCE 7-16 Chapter 21.

5.3 LIQUEFACTION

Certain areas within the intermountain region possess a potential for liquefaction during seismic events. Liquefaction is a phenomenon whereby loose, saturated, granular soil deposits lose a significant portion of their shear strength due to excess pore water pressure buildup resulting from dynamic loading, such as that caused by an earthquake. Among other effects, liquefaction can result in densification of such deposits causing settlements of overlying layers after an earthquake as excess pore water pressures are dissipated. The primary factors affecting liquefaction potential of a soil deposit are: (1) level and duration of seismic ground motions; (2) soil type and consistency; and (3) depth to groundwater.

Based on our review of the *Liquefaction-Special Study Areas, Wastach Front and nearby Area, Utah*, this portion of the Micron Property is located in an area currently designated as having a "Very Low to Low" liquefaction potential. "Low" liquefaction potential indicates that there is between a 5% to 10% probability of having an earthquake within a 100-year period that will be strong enough to cause liquefaction. "Very Low" liquefaction potential indicates that there is less than 5% probability of having an earthquake within a 100-year period that will be strong enough to cause liquefaction.

The near-surface soils observed within our test pits consisted of unsaturated soils. Groundwater was not observed in the test pits. A liquefaction analysis was beyond the scope of the project; however, if the owner or client wishes to have greater understanding of the liquefaction potential of the soils at greater depths, a liquefaction analysis should be completed at the site.

5.4 OTHER GEOLOGIC HAZARDS

According to the latest update to the Geologic Hazards on Utah Geologic Hazard Portal, a portion of the 128-acre portion of Micron Property is located in special study areas for debris flows and slope stability. Maps of these hazard are included on Plates A-6 to A-7. Recommendations for development in these mapped hazards special study areas should be addressed in a geologic hazard report or reports. The results of these reports and findings may limit the development or require mitigation prior to the development of the site.

6.0 ENGINEERING ANALYSIS AND RECOMMENDATIONS

6.1 GENERAL CONCLUSIONS

Based on the subsurface conditions encountered at the site, it is our opinion that the subject site is suitable for the proposed construction provided that the recommendations contained in this report are complied with. This conclusion should be understood as preliminary, and the results of geologic hazard analysis could designate some portions of this development as hazardous or unbuildable.

The recommendations presented in this report are based on our understanding of the proposed project, the subsurface conditions observed during field exploration, the results of laboratory testing, and our engineering analyses. If subsurface conditions other than those described herein are encountered in conjunction with construction, and/or if design and layout changes are initiated, we must be informed so that the recommendations herein can be reviewed and revised as changes or conditions may require.

Based on our observations, the subject site is overlain by ½-foot of topsoil soils. Increased depth of topsoil may be encountered in the drainages or within the alluvial fan deposits. These soils would need to be over-excavated in all areas underlying footing elements, pavements and any other areas which would underlie structural elements of the new development.

Although not encountered in our test pits completed during our investigation, the possibility exists that undocumented fill soils may be present on the subject property as a result of previous grading activities or nearby roadway construction. The owner and contractor should be aware that the possibility exists that sections of undocumented fill may be present at the subject property.

6.2 EARTHWORK

Prior to the placement of foundations, general site grading is recommended to provide proper support for foundations, exterior concrete flatwork, concrete slabs-on-grade, and pavement sections. Site grading is also recommended to provide proper drainage and moisture control on the subject property and to aid in preventing differential movement in foundation soils as a result of variations in moisture conditions.

6.2.1 General Site Preparation and Grading

In areas beneath footings and concrete flat work, the highly organic topsoil (top 3 to 6 inches) should be stripped and stockpiled for use in landscape areas or disposal. Debris, vegetation, undocumented fill, roots, loose, soft or other deleterious materials should also be removed. If over-excavation is required, the excavation should extend a minimum of one foot laterally for every foot of depth of over-excavation. The exposed subgrade should be proof-rolled with heavy equipment to identify loose, soft or otherwise disturbed soils. If soft soils are observed, they should be stabilized in accordance with our recommendations in the Soft Soil Stabilization Section (Section 6.2.3); if loose soils are observed, they should be compacted as recommended in Section 6.2.4.

A GeoStrata representative should observe the site preparation and grading operations to assess that the recommendations presented in this report are complied with.

6.2.2 Excavation Stability

Based on Occupational Safety and Health Administration (OSHA) guidelines for excavation safety, trenches with vertical walls up to 5 feet in depth may be occupied, however, the presence of fill soils, loose soils, or wet soils may require that the walls be flattened to maintain safe working conditions. When the trench is deeper than 5 feet, we recommend a trench-shield or shoring be used as a protective system to workers in the trench. Based on our soil observations, laboratory testing, and OSHA guidelines, native soils at the site classify as Type C soils. Deeper excavations, if required, should be constructed with side slopes no steeper than one and one- and one-half horizontal to one vertical (1.5H:1V). Wet conditions should be anticipated side slopes will likely need to be further flattened to maintain slope stability. Alternatively, shoring or trench boxes may be used to improve safe work conditions in trenches. The contractor is ultimately responsible for trench and site safety. Pertinent OSHA requirements should be met to provide a safe work environment. If site specific conditions arise that require engineering analysis in accordance with OSHA regulations, GeoStrata can respond and provide recommendations as needed.

We recommend that a GeoStrata representative be on-site during all excavations to assess the exposed soils in trench walls.

6.2.3 Soft Soil Stabilization

Based on observations during our field investigation, if near-surface soils become saturated soft or pumping soils may be exposed in excavations at the site. Once exposed, all subgrade surfaces beneath proposed structure, pavements, and flat work concrete should be proof rolled with heavy wheeled-construction equipment. If soft or pumping soils are encountered, these soils should be stabilized prior to construction of footings. Stabilization of the subgrade soils can be accomplished using a clean, coarse angular material worked into the soft subgrade. We recommend the material be greater than 2-inch diameter, but less than 6 inches. A locally available pit-run gravel may be suitable but should contain a high percentage of particles larger than 2 inches and have less than 7 percent fines (material passing the No. 200 sieve). A pit-run gravel may not be as effective as a coarse, angular material in stabilizing the soft soils and may require more material and greater effort. The stabilization material should be worked (pushed) into the soft subgrade soils until a firm relatively unyielding surface is established. Once a firm, relatively unyielding surface is achieved, the area may be brought to final design grade using structural fill.

In large areas of soft subgrade soils, stabilization of the subgrade may not be practical using the method outlined above. In these areas it may be more economical to place a woven geotextile fabric against the soft soils covered by 18 inches of coarse, sub-rounded to rounded material over the woven geotextile. An inexpensive non-woven geotextile "filter" fabric should also be placed over the top of the coarse, sub-rounded to rounded fill prior to placing structural fill or pavement section soils to reduce infiltration of fines from above. The woven geotextile should be Mirafi RS280i or prior approved equivalent. The filter fabric should consist of a Mirafi 140N, or equivalent as approved by the Geotechnical Engineer.

We recommend that a GeoStrata representative be on-site to assess the exposed excavation soils and be allowed to review the excavation plans when they are prepared in order to evaluate their compatibility with these recommendations.

6.2.4 Structural Fill and Compaction

All fill placed for the support of structures, flatwork or pavements, should consist of structural fill. Onsite soils may be utilized for structural fill, although the contractor should be aware that due to the over-sized aggregates or the clayey composition of the native soils, it may be difficult if not impossible to maintain active and accurate proctor values for moisture conditioning and compaction. As such, the native soil onsite may need to be screened and well mixed prior to the

use of the native soils as structural fill for development. Onsite undocumented fill soils may likewise be used as structural fill. The contractor should have confidence that the anticipated method of compaction will be suitable for the type of structural fill used. All structural fills should be free of vegetation, debris or frozen material, and should contain no inert materials larger than **4 inches** in nominal diameter.

If an imported material will be used as structural fill, it should consist a relatively well-graded granular soil with a maximum of 50 percent passing the No. 4 sieve and a maximum fines content (minus No.200 mesh sieve) of 25 percent. Fill material potion finer than the No. 40 sieve should have a liquid limit (LL) less than 35 and a plasticity index (PI) less than 25. The table below provides our recommended gradation and Atterberg limits requirements for structural fill.

Grain Size	Percent Passing
4-inch	100
2-inch	85 to 100
No. 4	15 to 50
No. 200	< 25
Liquid Limit (LL)	<35
Plasticity Index (PI)	<25

All structural fill soils should be approved by the Geotechnical Engineer prior to placement. Earth materials not meeting the aforementioned criteria may be suitable for use as structural fill; however, such material should be evaluated on a case-by-case basis and should be approved by the Geotechnical Engineer prior to use. These requirements for structural fill meet the needs of the site; however, regulating entities including special service districts, cities etc. may require the use of a predefined structural fill for use in their utility corridors/trenches. The contractor should be aware of the special requirements of structural fill by these regulating entities.

GeoStrata observed that some of the native soils meet the requirements for A-1-a according to AASTHO soil classification system. A table of the laboratory tests and soil classification are provided below;

Sample Location and Depth	USCS Classification	AASTHO Classification	Can be used as onsite structural fill
ME-TP-01	SM	A-1-b	Yes
ME-TP-03	GM	A-1-b	Yes
ME-TP-03	CL	A-6	No
ME-TP-04	CL	A-6	No
ME-TP-05	SM	A-2-4	Yes
ME-TP-06	SM	A-2-4	Yes
ME-TP-09	ML	A-4	No
ME-TP-10	CL	A-6	No
ME-TP-11	SP-SM	A-1-b	Yes
ME-TP-13	CL	A-6	No
ME-TP-17	CL	A-6	No
ME-TP-24	SM	A-1-a	Yes
ME-TP-25	SC	A-4	Yes
ME-TP-26	SC-SM	A-2-4	Yes
ME-TP-27	SM	A-1-b	Yes
ME-TP-29	SP-SM	A-1-b	Yes
ME-TP-33	GM	A-1-a	Yes
ME-TP-34	SM	A-4	No
ME-TP-36	GM	A-4	No
ME-TP-55	GM	A-1-b	Yes

All structural fill should be placed in maximum 10-inch loose lifts if compacted by small hand-operated compaction equipment, maximum 12-inch loose lifts if compacted by riding rollers or heavy duty compaction equipment that is capable of efficiently compacting the entire thickness of the lift. We recommend that all structural fill be compacted on a horizontal plane, unless otherwise approved by the geotechnical engineer. Structural fill should be compacted to at least 95% of the maximum dry density, as determined by ASTM D-1557, for fill 5 feet or less in thickness. The required compaction should be increased to 98% for fills greater than 5 feet in thickness. The moisture content should be at or slightly above the optimum moisture content at

the time of placement and compaction. Also, prior to placing any fill, the excavations should be observed by the geotechnical engineer to observe that any unsuitable materials or loose soils have been removed. In addition, proper grading should precede placement of fill, as described in the **General Site Preparation and Grading** subsection of this report (Section 6.2.1).

We understand that grading fills and structural fill will be placed up to 12 feet in total height. Fill soils placed for subgrade below exterior flat work and pavements, should be within 3% of the optimum moisture content when placed and compacted to at least 95% of the maximum dry density as determined by ASTM D-1557, for fills less than 6 feet in depth. Fill soils placed for subgrade below exterior flat work and pavements, should be within 3% of the optimum moisture content when placed and compacted to at least 95% of the maximum dry density as determined by ASTM D-1557, for fills more than 6 feet and less than 12 feet in depth. If fills greater than 12 feet in thickness are anticipated, GeoStrata should be contacted for recommendations concerning the placement of such sections. All utility trenches backfilled below the proposed structure, pavements, and flatwork concrete, should be backfilled with onsite soils or structural fill that is within 3% of the optimum moisture content when placed and compacted to at least 95% of the maximum dry density as determined by ASTM D-1557. All other trenches, in landscape areas, should be backfilled and compacted to at least 90% of the maximum dry density (ASTM D-1557).

The gradation, placement, moisture, and compaction recommendations contained in this section meet our minimum requirements but may not meet the requirements of other governing agencies such as city, county, or state entities. If their requirements exceed our recommendations, their specifications should override those presented in this report.

6.3 FOUNDATIONS

The foundations for the proposed structures may consist of conventional strip and/or spread footings. Strip and spread footings should be a minimum of 20 and 30 inches wide, respectively, and exterior shallow footings should be embedded at least 30 inches below final grade for frost protection and confinement. Interior shallow footings not susceptible to frost conditions should be embedded at least 18 inches for confinement.

6.3.1 Installation and Bearing Material

Due to the presence of dense granular soils (sands and gravels) and fine-grained soils with low potential for collapsible soil present at the proposed buildings elevations (between 2 to 8 feet below the existing ground surface), strip and spread footings can be placed entirely on non-

collapsible undisturbed native soils. If soil at the foundation elevation appears to have a hydro-collapsible nature (pinholes, low natural density, etc.), collapse testing in the laboratory should be performed on a lot-by-lot basis to confirm the that potential collapse will not adversely affect the proposed construction. Foundation elements should not be founded on collapsible soils, and if these soils are encountered, they should be over-excavated according to the results of lot-specific laboratory collapse testing. According to our preliminary soil collapse testing, structural fill depth below footings will not be required. The site may then be brought back up to design grade using properly placed and compacted structural fill. Structural fill should meet material recommendations and be placed and compacted as recommended in Section 6.2.4 of this report.

Foundation elements should not be founded on undocumented fill, and if these soils are encountered, they should be over-excavated until suitable, native soils are exposed. Foundation elements should not be founded on combination soils (i.e. partially on clay and partially on gravels), and if these soils condition are encountered, they should be over-excavated a minimum of 1-foot. The site may then be brought back up to design grade using properly placed and compacted structural fill. Structural fill should meet material recommendations and be placed and compacted as recommended in Section 6.2.4 of this report.

All organic material, soft areas, frozen material or other inappropriate material shall be removed from the footing zone to a depth determined by the Geotechnical Engineer and be replaced with structural fill where over excavation is required.

6.3.2 Bearing Pressure

Conventional strip and spread footings founded on a native soil or on structural fill may be proportioned for a maximum net allowable bearing capacity of **2,000 pounds per square foot (psf).** The recommended net allowable bearing pressure refers to the total dead load and can be increased by ⅓ to include the sum of all loads including wind and seismic.

6.3.3 Settlement

Settlements of properly designed and constructed conventional footings, founded as described above, are anticipated to be less than 1 inch. Differential settlements should be on the order of half the total settlement over 30 feet.

6.3.4 Frost Depth

All exterior footings and spread footings are to be constructed at least 30 inches below the ground surface for frost protection and confinement. This includes walk-out areas and may

require fill to be placed around buildings. Interior strip footings not susceptible to frost conditions should be embedded at least 18 inches for confinement. If foundations are constructed through the winter months, all soils on which footings will bear shall be protected from freezing.

6.3.5 Construction Observation

A geotechnical engineer shall periodically monitor excavations prior to installation of footings. Inspection of soil before placement of structural fill or concrete is required to detect any field conditions not encountered in the investigation which would alter the recommendations of this report. All structural fill material shall be tested under the direction of a geotechnical engineer for material and compaction requirements.

6.3.6 Foundation Drainage

As stated in Section 4.2.2 of this report, groundwater was not encountered in the test pits. IRC Section R405 *Foundation Drainage* recommends the construction of a foundation drain around any walls or portions thereof that retain earth and enclose spaces and floors below grade. Where a site is located in well-drained gravel or sand/gravel mixture soils, a dedicated drainage system is not required.

We recommend that the IRC Section R405 Foundation Drainage recommends be complied with. The foundation drain should consist of a 4-inch perforated pipe placed at or below the footing elevation. The pipe should be covered with at least 12 inches of free draining gravel (containing less than 5 percent passing the No. 4 sieve) and be graded to a free gravity outfall or to a pumped sump. A separator fabric, such as Mirafi 140N, should separate the free draining gravel and native soil (i.e. the separator fabric should be placed between the gravel and the native soils at the bottom of the gravel, the side of the gravel where the gravel does not lie against the concrete footing or foundation and at the top of the gravel). We recommend that the gravel extend up the foundation wall to within 2 feet of the final ground surface. As an alternative, the gravel extending up the foundation wall may be replaced with a prefabricated drain panel, such as Ecodrain-E. We recommend that the foundation drain construction be observed and documented in a subsequent observation letter.

As an added precaution, the following moisture protection mitigation recommendation should be implemented to help reduce the risk from potential settlement from occurring. These items are summarized as follows:

- Moisture should not be allowed to infiltrate into the soils in the vicinity of the foundations. As such, design strategies to minimize ponding and infiltration near the home should be implemented.
- The ground surface within 10 feet of the entire perimeter of the building should slope a minimum of five percent away from the structure. Alternatively, a slope of 5% is acceptable if the water is conveyed to a concrete ditch that will convey the water to a point of discharge that is at least 10 feet from the structures.
- Roof runoff devices (rain gutters) should be installed to direct all runoff a minimum of 10 feet away from the structure and preferably day-lighted to the curb where it can be transferred to the storm drain system. Rain gutters discharging roof runoff adjacent to or within the near vicinity of the structure may result in excessive differential settlement.
- We recommend irrigation around foundations be minimized by selective landscaping and that irrigation valves be constructed at least 5 feet away from foundations.
- Jetting (injecting water beneath the surface) to compact backfill against foundation soils may result in excessive settlement beneath the building and is not allowed.
- Backfill against foundations walls should be placed and compacted in accordance with the Section 6.2.4.
- Any additional precautions which may become evident during construction.

6.4 CONCRETE SLAB-ON-GRADE CONSTRUCTION

Concrete slabs-on-grade should be constructed over at least 4 inches of compacted gravel. Disturbed native soils should be compacted to at least 95% of the maximum dry density as determined by ASTM D-1557 (modified proctor) prior to placement of gravel. The gravel should consist of road base or clean drain rock with a ¾-inch maximum particle size and no more than 12 percent fines passing the No. 200 mesh sieve. The gravel layer should be compacted to at least 95 percent of the maximum dry density of modified proctor or until tight and relatively unyielding if the material is non-proctorable. The maximum load on the floor slab should not exceed 100 psf; greater loads would require additional subgrade preparation and additional structural fill. All concrete slabs should be designed to minimize cracking as a result of shrinkage. Consideration should be given to reinforcing the slab with welded wire, re-bar, or fiber mesh.

6.5 EARTH PRESSURE AND LATERAL RESISTANCE

Lateral forces imposed upon conventional foundations due to wind or seismic forces may be resisted by the development of passive earth pressures and friction between the base of the

footing and the supporting subgrade. In determining the frictional resistance, a coefficient of friction of 0.41 should be used for native soils against concrete or 0.43 for structural fill against concrete.

Ultimate lateral earth pressures from native soil backfill acting against retaining walls and buried structures may be computed from the lateral pressure coefficients or equivalent fluid densities presented in the following table:

Condition	Lateral Pressure Coefficient	Equivalent Fluid Density (pounds per cubic foot)
Active[1]	0.29	34
At-rest[2]	0.48	58
Passive[1]	11.62	1394
Seismic Active[3]	0.33	40
Seismic Passive[4]	-8.93	-1072

[1]Based on Coulomb's equation
[2]Based on Jaky
[3]Based on Lew et al. (2010)
[4]Based on Mononobe-Okabe Equation

These coefficients and densities assume level, granular backfill with no buildup of hydrostatic pressures. The force of the water should be added to the presented values if hydrostatic pressures are anticipated. If sloping backfill is present, we recommend the geotechnical engineer be consulted to provide more accurate lateral pressure parameters once the design geometry is established.

Walls and structures allowed to rotate slightly should use the active condition. If the element is constrained against rotation, the at-rest condition should be used. These values should be used with an appropriate factor of safety against overturning and sliding. A value of 1.5 is typically used. Additionally, if passive resistance is calculated in conjunction with frictional resistance, the passive resistance should be reduced by ½.

For seismic analyses, the *active* and *passive* earth pressure coefficient provided in the table is based on Lew et al (2010) and Mononobe-Okabe respectively and only accounts for the dynamic horizontal thrust produced by ground motion. Hence, the resulting dynamic thrust pressure should be added to the static pressure to determine the total pressure on the wall. The pressure distribution of the dynamic horizontal thrust may be closely approximated as an inverted triangle

with stress decreasing with depth and the resultant acting at a distance approximately 0.6 times the loaded height of the structure, measured upward from the bottom of the structure.

The coefficients shown assume a vertical wall face. Hydrostatic and surcharge loadings, if any, should be added. Over-compaction behind walls should be avoided. Resisting passive earth pressure from soils subject to frost or heave, or otherwise above prescribed minimum depths of embedment, should usually be neglected in design.

6.6 PAVEMENT SECTION

For pavement design, the following CBR laboratory test result was obtained:

Test Pit	Depth (ft)	Soil Type	CBR (%)
ME- TP-04	1.0	CL	4.3
ME-TP-10	1.0	CL	3.9

The test results indicate that CBR value of 4.0 would an acceptable approximation of the site CBR value. No traffic information was available at the time this report was prepared; therefore, GeoStrata has assumed traffic counts for the local and private roads and parking areas. We assumed that vehicle traffic along the local and private roadways will consist of approximately 1,500 passenger car trips per day, 2 small trucks per day, and 2 large trucks per day with a 20-year design life. Based on these assumptions, our analysis uses 51,000 ESAL's for for a 20-year design life of the pavement. We assumed that vehicle traffic along the collector and arterial roads will consist of approximately 1,275,000 ESAL's for a 20-year design life (approximately 25 times greater than private roads).

Based on these assumptions, our analysis uses 51,000 and 1,275,000 ESAL's for the traffic over the life of the pavement. Asphalt has been assumed to be a high stability plant mix or Superpave mix with a minimum CBR of 70. The untreated base course material (road base or UTBC) composed of crushed stone with a minimum CBR of 30. The table below presents equivalent recommended pavement sections based on the above assumptions. The City of Lehi minimum pavement section may govern the pavement design.

Local and Private Roadways Pavement Sections

Pavement Materials	Recommended Minimum Thickness (in)		
	Pavement 1	Pavement 2	City Minimum
Asphaltic Concrete	3	3	3
Untreated Base Course	6	8	6
Granular Borrow/ Engineered Fill	9	6	15

Collector and Arterial Pavement Sections

Pavement Materials	Recommended Minimum Thickness (in)		
	Pavement 1	Pavement 2	City Minimum
Asphaltic Concrete	5	6.5	6.5
Untreated Base Course	8	9	6
Granular Borrow/ Engineered Fill	17	9	15

The pavement section thicknesses above assume that there is no mixing over time between the road base and the softer native layers below. In order to prevent mixing or fines migration, and thereby prolong the life of the pavement section, we recommend that the owner give consideration to placing a non-woven filter fabric between the native soils and the road base. We recommend that a Propex Geotex® NW-401, NW-601, or a GeoStrata-approved equivalent be used.

If traffic conditions vary significantly from our stated assumptions, GeoStrata should be contacted so we can modify our pavement design parameters accordingly. Specifically, if the traffic counts are significantly higher or lower, we should be contacted to review the pavement sections as necessary. The pavement sections thicknesses above assumes that the majority of construction traffic including cement trucks, cranes, loaded haulers, etc. has ceased. If a significant volume of construction traffic occurs after the pavement section has been constructed, the owner should anticipate maintenance or a decrease in the design life of the pavement area.

In our experience, in areas with heavy truck loads where trucks frequently turn around, backup, or load and unload, such as areas around dumpsters, pavements experience more distress. To prolong the life of the pavement in these areas, consideration should be given to using a Portland

cement concrete (rigid) pavement in these areas. The table below presents our recommended rigid pavement section.

Rigid Pavement Section

Pavement Materials	Recommended Minimum Thickness (in)
	Rigid Pavement 1
Concrete	5
Untreated Base Course	6

Concrete should consist of a low slump, low water cement ratio mix with a minimum 28-day compressive strength of 4,000 psi. Base course should be compacted to at least 95% of the maximum dry density as determined by the ASTM D-1557.

The pavement sections discussed above meet our minimum recommendations for pavement design. It should be noted that more stringent pavement section requirements may be enforced by Lehi City, Draper City, Utah County or other governing agency.

7.0 CLOSURE

7.1 LIMITATIONS

The recommendations contained in this report are based on our limited field exploration, laboratory testing, and understanding of the proposed construction. The subsurface data used in the preparation of this report were obtained from the explorations made for this investigation. It is possible that variations in the soil and groundwater conditions could exist between and beyond the points explored. The nature and extent of variations may not be evident until construction occurs. If any conditions are encountered at this site that are different from those described in this report, GeoStrata should be immediately notified so that we may make any necessary revisions to recommendations contained in this report. In addition, if the scope of the proposed construction changes from that described in this report, GeoStrata should be notified.

This report was prepared in accordance with the generally accepted standard of practice at the time the report was written. No other warranty, expressed or implied, is made.

It is the Client's responsibility to see that all parties to the project including the Designer, Contractor, Subcontractors, etc. are made aware of this report in its entirety. The use of information contained in this report for bidding purposes should be done at the Contractor's option and risk.

7.2 ADDITIONAL SERVICES

The recommendations made in this report are based on the assumption that an adequate program of tests and observations will be made during construction. GeoStrata staff should be on site to verify compliance with these recommendations. These tests and observations should include, but not necessarily be limited to, the following:

- Observations and testing during site preparation, earthwork and structural fill placement.
- Observation of foundation soils to assess their suitability for footing placement.
- Observation of soft/loose soils over-excavation.
- Observation of temporary excavations and shoring.
- Consultation as may be required during construction.
- Quality control and observation of concrete placement.

We also recommend that project plans and specifications be reviewed by GeoStrata to verify compatibility with our conclusions and recommendations. Additional information concerning the scope and cost of these services can be obtained from our office.

We appreciate the opportunity to be of service on this project. Should you have any questions regarding the report or wish to discuss additional services, please do not hesitate to contact us at your convenience at (801) 501-0583.

7.3 ACKNOWLEDGEMENTS

This project was made possible through the help of Dan Mitchell and Scott Bishop with D.R. Horton, they scheduled meetings with the landowners and worked on permits for land disturbance and scheduled a second trackhoe to dig the east side of the property test pits at the site. Dale Judd with JSI Ventures, LLC, the operator with the excavation company that completed the test pits on the west side of the property. Bryce Jackson, E.I.T., Nate Flores, Ashley Peay, and James Moore with GeoStrata all logged test pits and collected samples at the site. Jerry Olson and Jack Berry with Micron Technology, Inc met multiple times to discuss utility location. There are others with GeoStrata, D.R. Horton, and Micron Technology Inc. that made this project happen. Thank you.

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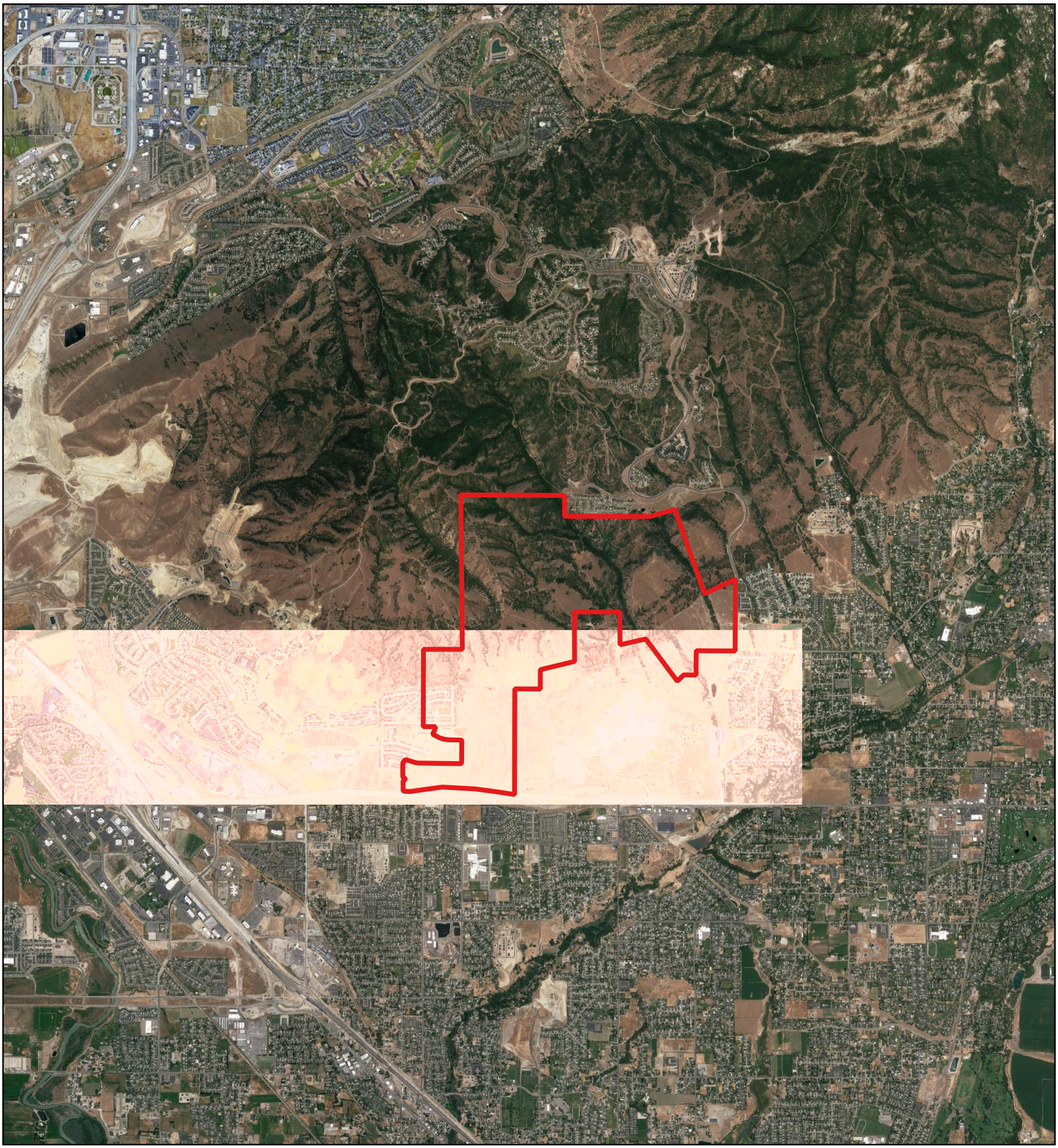
APPENDIX A



Legend

Bondaries

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N

GeoStrata

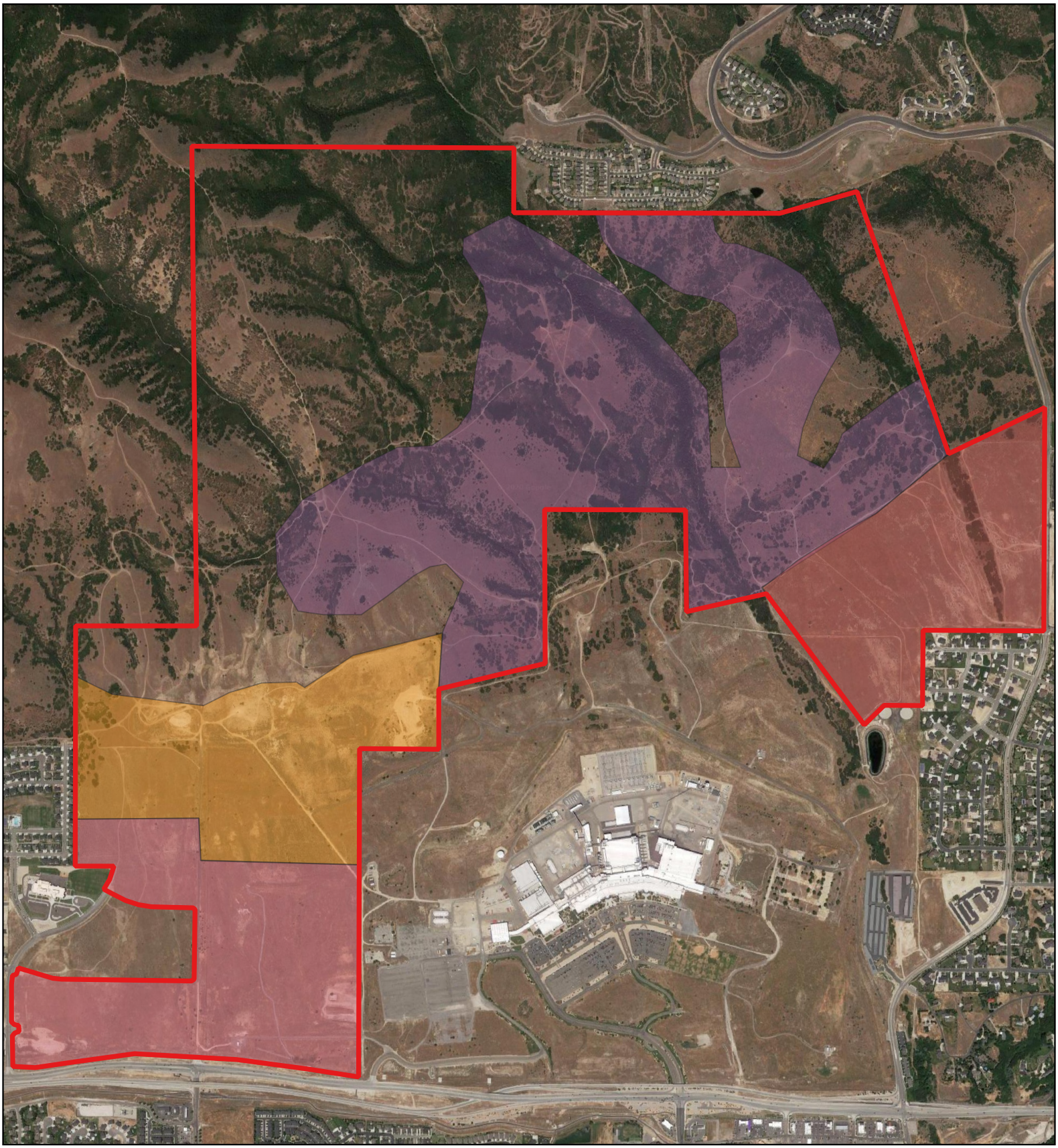
Copyright, 2020

D.R. Horton
Mircon Property
Lehi/Draper, Utah
Project Number

Site Vicinity Map

Plate A-1

1341



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GeoStrata

Copyright, 2020

Legend

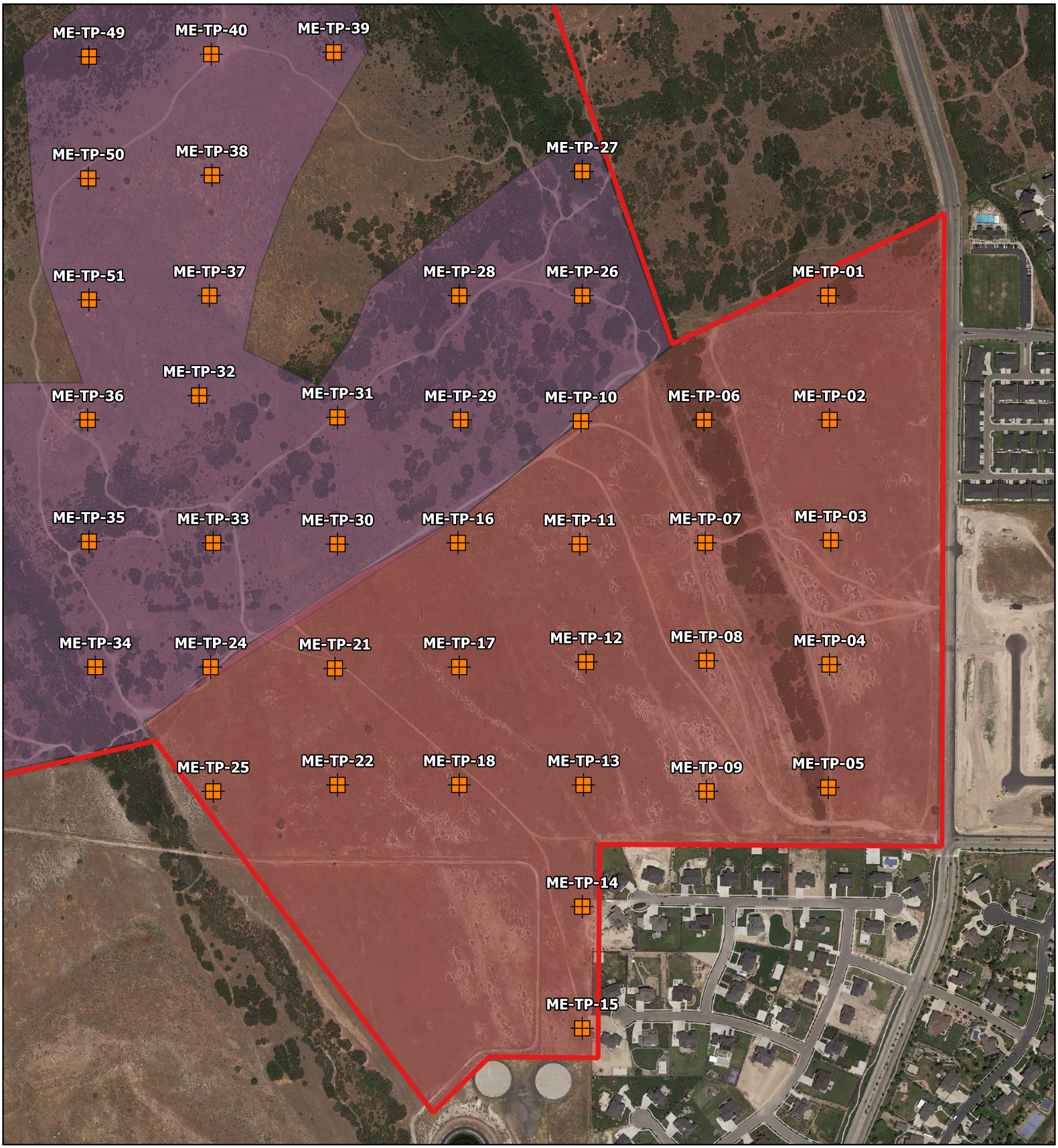
- Mircon Property Boundaries
- High Density Single Family, Commerial, and Apartments
- Lehi Emerald Single Family and Single Family
- Highland Emerald Single Family
- Mountain Single Family

D.R. Horton
Mircon Property
Lehi/Draper, Utah
Project Number

Site Section Map

Plate A-2

1342



Legend

- Mircon Property Boundaries
- Approximate Test Pit Location
- High Density Single Family, Commercial, and Apartments
- Lehi Emerald Single Family and Single Family
- Highland Emerald Single Family
- Mountain Single Family

400 0 400 800 1200 1600 ft

1:6000

N

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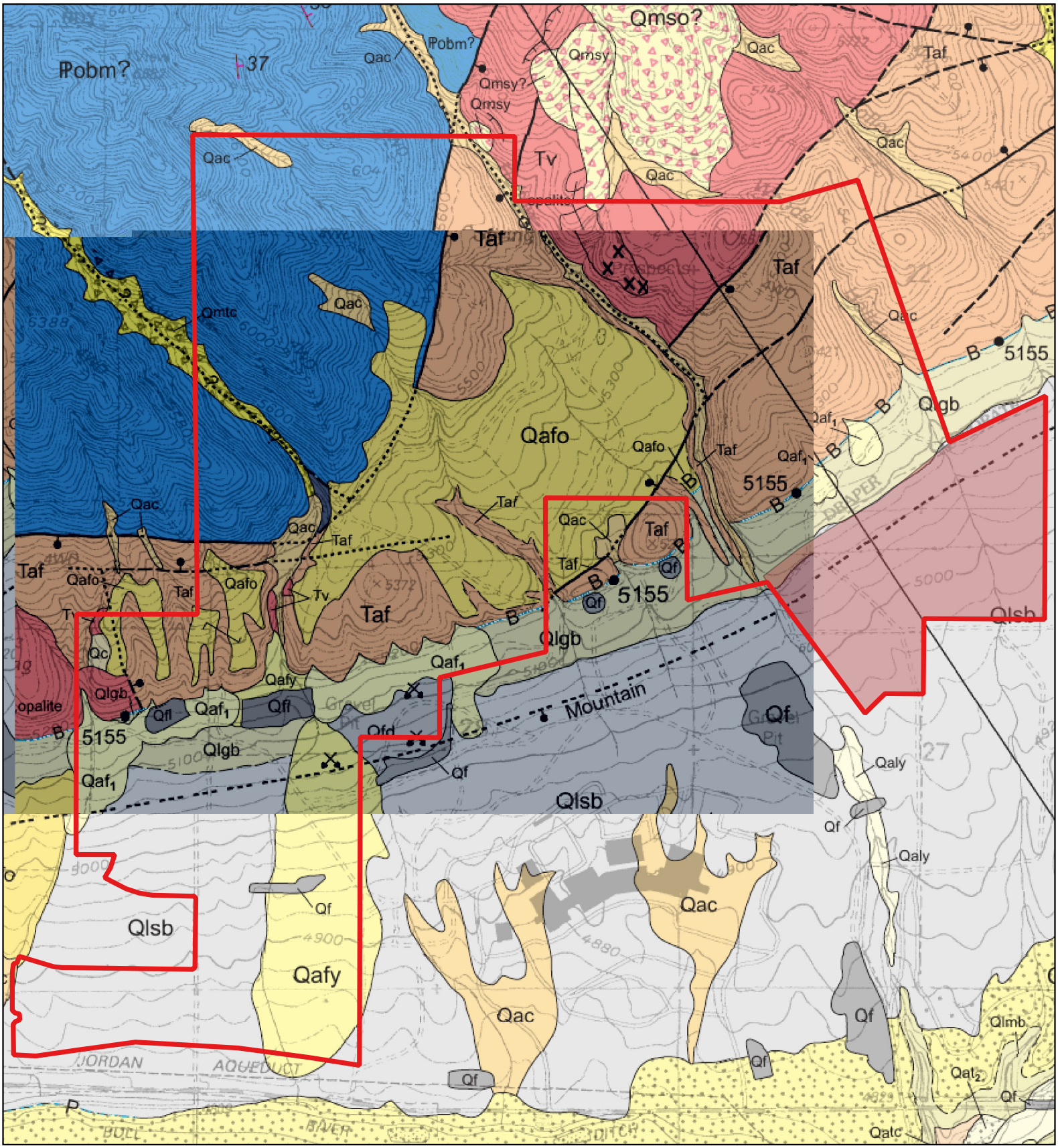
D.R. Horton
Mircon Property
Lehi/Draper, Utah

Highland Emerald Single Family Section Exploration Map

Plate A-5

1343



Legend

- Mircon Property Boundaries
- Highland Emerald Single Family

400 0 400 800 1200 1600 ft

1:17000

N

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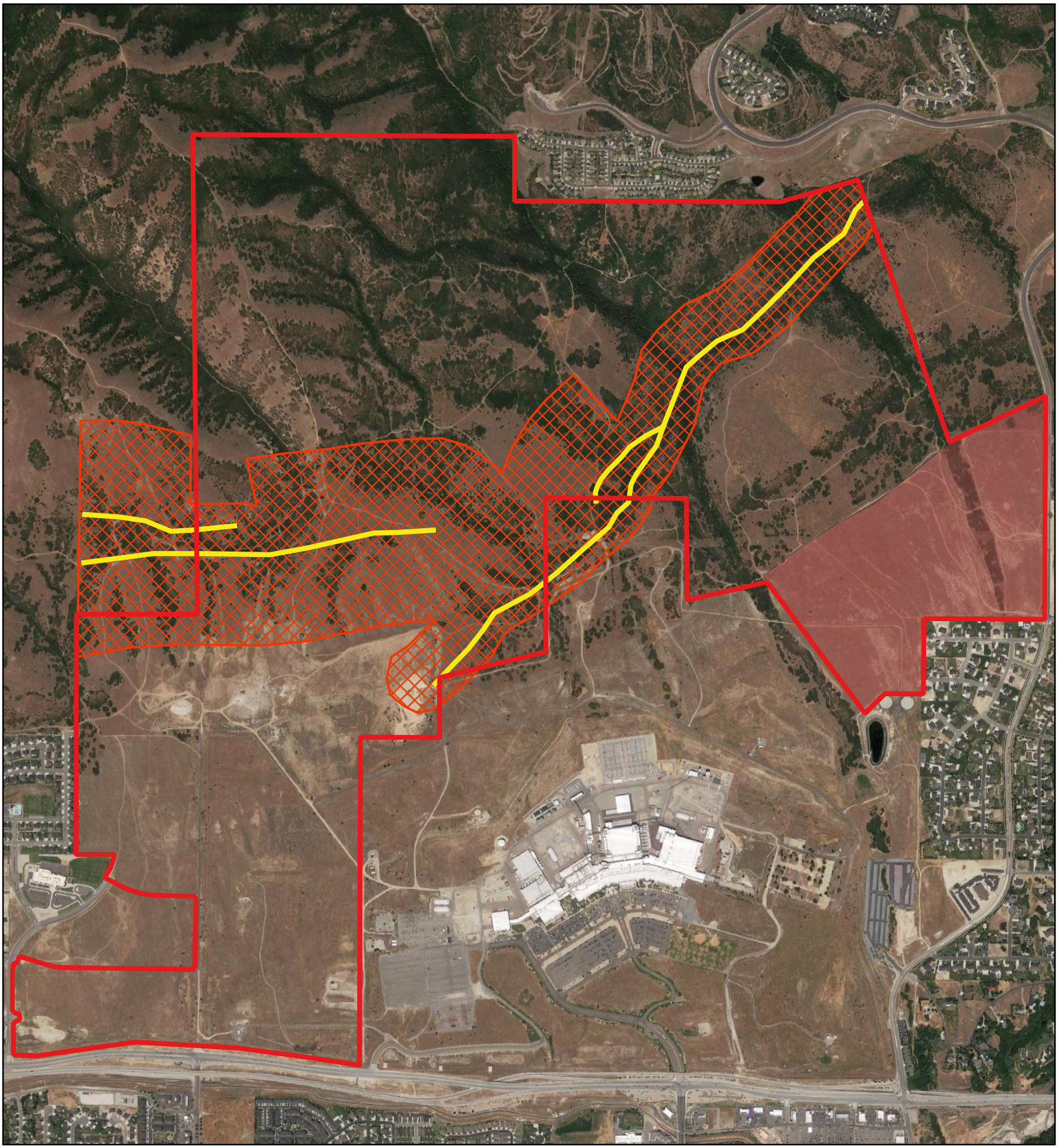
D.R. Horton
Mircon Property
Lehi/Draper, Utah
Project Number 589-100

Site Geology Map

Plate A-4

1344



Legend

- Mircon Property Boundaries
- Highland Emerald Single Family
- Approximate Faults
- Fault Special Study Area

400 0 400 800 1200 1600 ft

1:17000

N

GeoStrata

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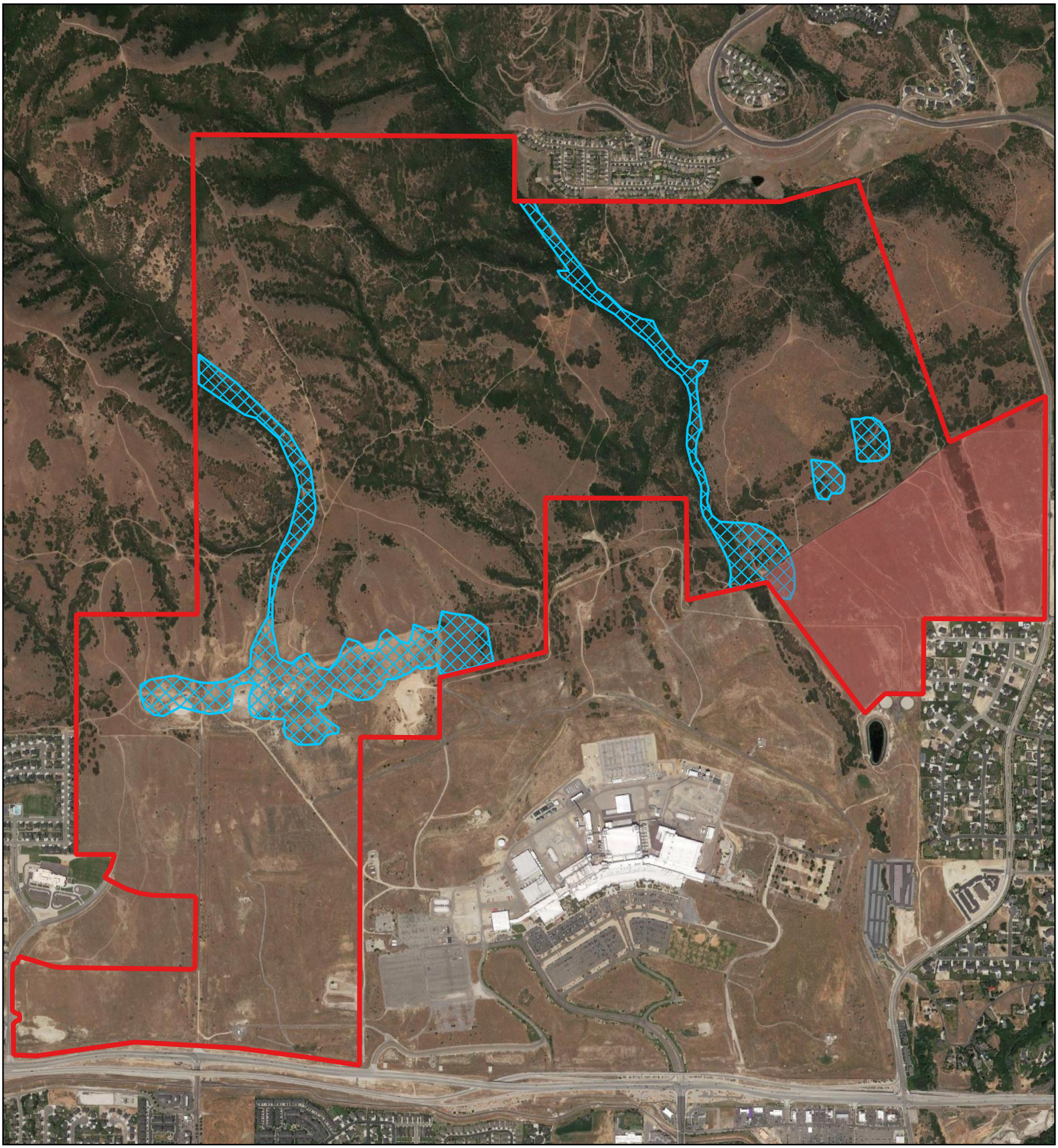
D.R. Horton
Mircon Property
Lehi/Draper, Utah
Project Number 589-100

Faults and Fault Special Study Area Map

Plate A-5



Legend

- Mircon Property Boundaries
- Highland Emerald Single Family
- Debris Flow Study Areas

400 0 400 800 1200 1600 ft

1:17000

N

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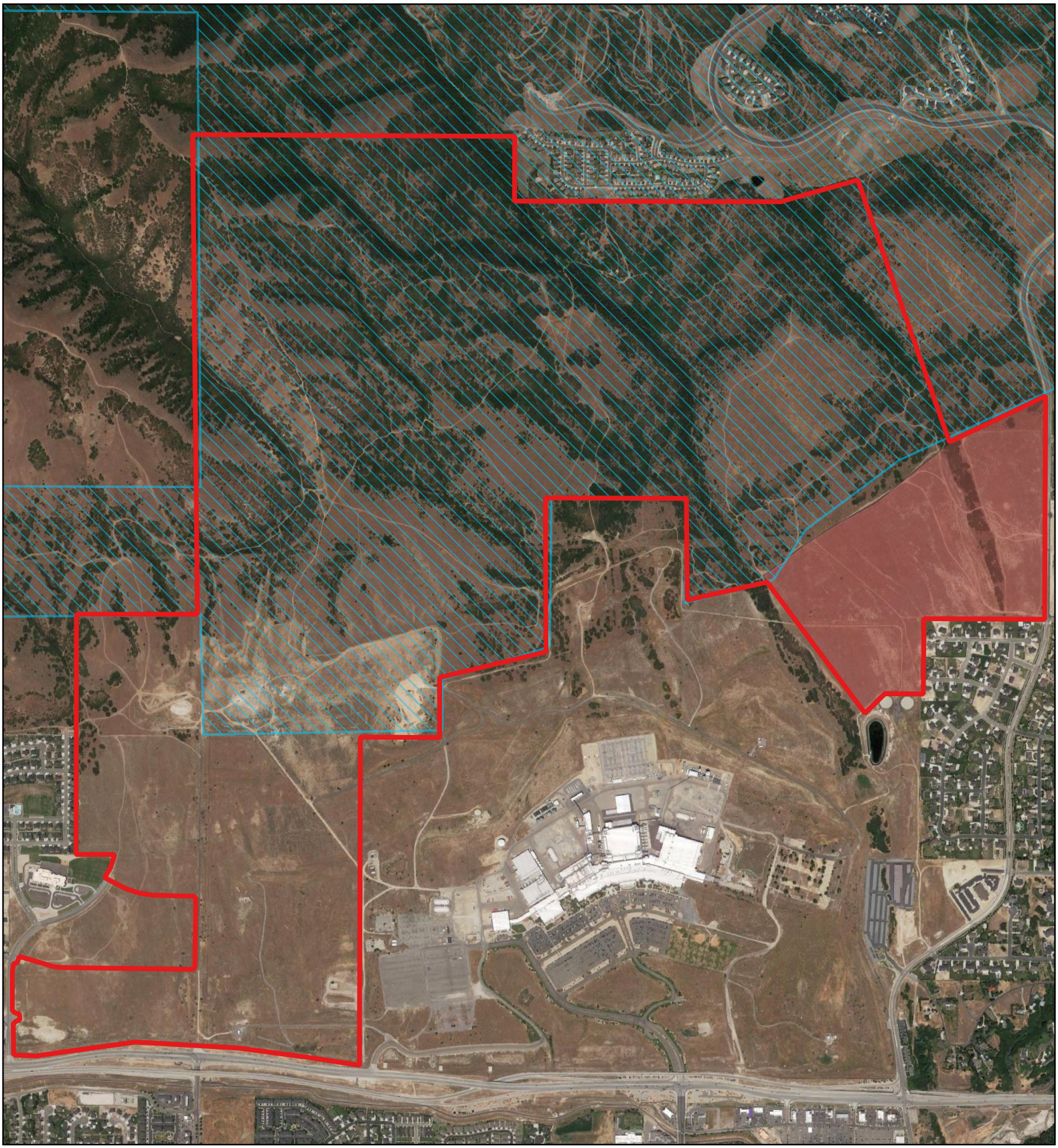
D.R. Horton
Mircon Property
Lehi/Draper, Utah
Project Number 589-100

Debris Flow Special Study Area Map

Plate A-6



Legend

- Mircon Property Boundaries
- Slope Stability Special Study Area
- Highland Emerald Single Family

400 0 400 800 1200 1600 ft

1:17000

N

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Mircon Property
Lehi/Draper, Utah
Project Number 589-100

Slope Special Study Area Map

Plate A-7

APPENDIX B

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: N. F.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-01
Sheet 1 of 1

LOCATION
NORTHING 4,478,261.00 EASTING 4,478,261.00 ELEVATION 5,075-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SP	Poorly Graded SAND with gravel - medium dense, moist, dark brown, subrounded gravel up to 3 inches in diameter						
1					SM	Silty SAND with gravel - dense, moist, brown, occasional organics		6.4	22.6			●
	5											
2												
					SM	Silty SAND - dense, moist, light brown						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 1

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: N. F.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-02
Sheet 1 of 1

LOCATION
NORTHING 4,478,112.00 EASTING 4,478,112.00 ELEVATION 5,043-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout					
					CL	Sandy Lean CLAY - stiff, moist, dense					
1							85.5	20.8	63.7	34	13
	5										
					SC-SM	Silty Clayey SAND - dense, moist, tan					
2											
3	10										
4						Bottom of Test Pit @ 13 Feet					

Moisture Content and Atterberg Limits

Plastic Limit — Moisture Content — Liquid Limit

10 20 30 40 50 60 70 80 90

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 2

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: N. F.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-03
Sheet 1 of 1

LOCATION
NORTHING 4,477,976.00 EASTING 4,477,976.00 ELEVATION 5,025-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout					
					GM	Silty GRAVEL with sand - dense, moist, brown					
1								7.3	17.4		
					SM	Silty SAND - dense, moist, light brown					
	5				CL	Lean CLAY - stiff, moist, brown, sand was observed to be fine-grained	96.4	19.7	92.4	30	9
2											
3	10							20.2	93.7		
						Bottom of Test Pit @ 12 Feet					
4											

Moisture Content and Atterberg Limits

Plastic Limit — Moisture Content — Liquid Limit

10 20 30 40 50 60 70 80 90

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 3

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: N. F.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-04
Sheet 1 of 1

LOCATION
NORTHING 4,477,827.00 EASTING 4,477,827.00 ELEVATION 5,002-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout					
					CL	Lean CLAY - stiff, moist, tan, minor cementation		3.2	97.1	35	14
1							98.4	10.4	92.9	34	12
	5										
2					SM	Silty SAND - dense, moist, light brown					
3	10										
						Bottom of Test Pit @ 12 Feet					
4											

Moisture Content and Atterberg Limits

Plastic Limit — Moisture Content — Liquid Limit

10 20 30 40 50 60 70 80 90

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 4

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: N. F.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-05
Sheet 1 of 1

LOCATION
NORTHING 4,477,674.00 EASTING 4,477,674.00 ELEVATION 4,978-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND with gravel - dense, moist, light brown						
1								6.5	33.5			●
	5											
						- subrounded cobbles up to 7 inches in diameter						
2												
					SM	Silty SAND with gravel - dense, moist, light brown						
3	10											
						Bottom of Test Pit @ 11 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate B - 5

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: N. F.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-06
Sheet 1 of 1

LOCATION
NORTHING 4,478,114.00 EASTING 4,478,114.00 ELEVATION 5,055-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SP	Poorly Graded SAND with silt and gravel - medium dense, moist, dark brown						
					SM	Silty SAND with gravel - dense, moist, light brown		6.6	26.4			●
1												
					SP	Poorly Graded SAND - medium dense, moist, brown						
	5											
2												
					GP	Poorly Graded GRAVEL with sand - dense, moist, light brown, subrounded gravel and cobbles up to 10 inches in diameter						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 6

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: N. F.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-07
Sheet 1 of 1

LOCATION
NORTHING 4,477,972.00 EASTING 4,477,972.00 ELEVATION 5,031-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					CL	Sandy Lean CLAY - stiff, moist, brown						
1												
							92.3	14.2	67.8	32	9	
	5											
2												
3	10				SP	Poorly Graded SAND - medium dense, moist, light brown, sand is coarse grained						
					SM	Silty SAND - dense, moist, light brown						
4						Bottom of Test Pit @ 13 Feet						

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 7

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: N. F.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-08
Sheet 1 of 1

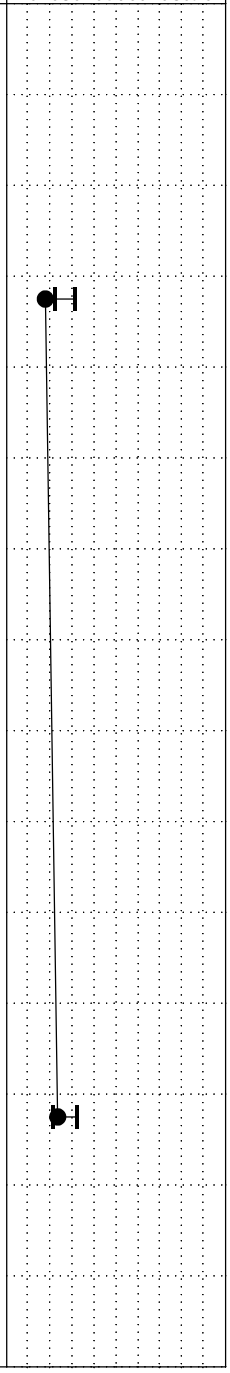
LOCATION
NORTHING 4,477,831.00 EASTING 4,477,831.00 ELEVATION 5,013-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout					
					SM	Silty SAND - dense, moist, tan					
					CL	Lean CLAY - stiff, moist, brown, iron staining throughout					
1							95.1	17.6	90.3	31	9
	5										
2											
3	10										
							92.9	23.3	98.8	32	11
4											
						Bottom of Test Pit @ 14 Feet					

Moisture Content and Atterberg Limits

Plastic Limit — Moisture Content — Liquid Limit

10 20 30 40 50 60 70 80 90



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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 8

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: N. F.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-09
Sheet 1 of 1

LOCATION
NORTHING 4,477,678.00 EASTING 4,477,678.00 ELEVATION 4,986-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					ML	SILT - stiff, moist, tan						
1												
					ML	SILT - stiff, moist, brown, iron staining throughout		18.1	96.4			●
	5											
2												
					GP	Poorly Graded GRAVEL with sand - medium dense, moist, tan, occasional cobbles throughout						
3	10											
4						Bottom of Test Pit @ 13 Feet						

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 9

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

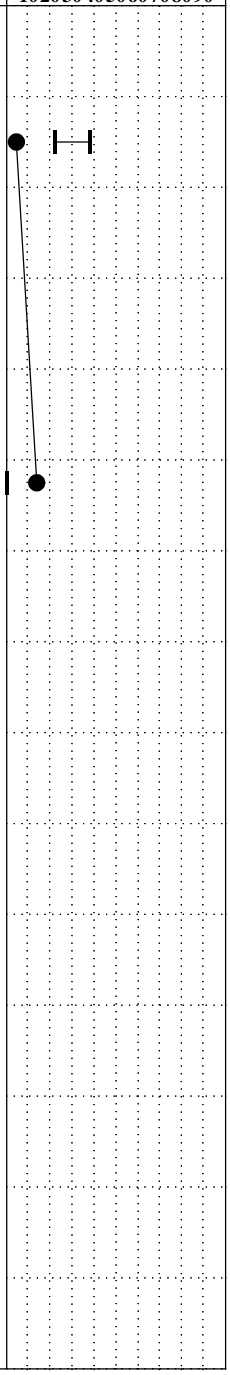
GeoStrata Rep: N. F.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-10
Sheet 1 of 1

LOCATION
NORTHING 4,478,112.00 EASTING 4,478,112.00 ELEVATION 5,074-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout					
					CL	Lean CLAY with sand - stiff, moist, light brown		4.4	84.0	38	16
1											
	5						73.9	13.7	78.7	NP	NP
2											
					GP	Poorly Graded GRAVEL with sand - medium dense, moist, tan, occasional cobbles throughout					
3	10										
						Bottom of Test Pit @ 12 Feet					
4											

Moisture Content and Atterberg Limits



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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 10

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: N. F.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-11
Sheet 1 of 1

LOCATION
NORTHING 4,477,967.00 EASTING 4,477,967.00 ELEVATION 5,046-ft

METERS	FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND - dense, moist, light brown						
1					SC-SM	Silty Clayey SAND - medium dense, moist, light brown						
	5											
2					SP	Poorly Graded SAND with silt - medium dense, moist, tan		5.2	5.9			●
3	10											
4						Bottom of Test Pit @ 13 Feet						

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 11

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: N. F.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-12
Sheet 1 of 1

LOCATION
NORTHING 4,477,829.00 EASTING 4,477,829.00 ELEVATION 5,024-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND - dense, moist, light brown						
1					CL-ML	Silty CLAY - medium stiff, moist, brown, iron staining throughout	97.0	23.6	93.5	32	11	
	5											
2												
3	10											
4						Bottom of Test Pit @ 13 Feet						

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 12

DATE	
STARTED:	12/2/20
COMPLETED:	12/2/20
BACKFILLED:	12/2/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

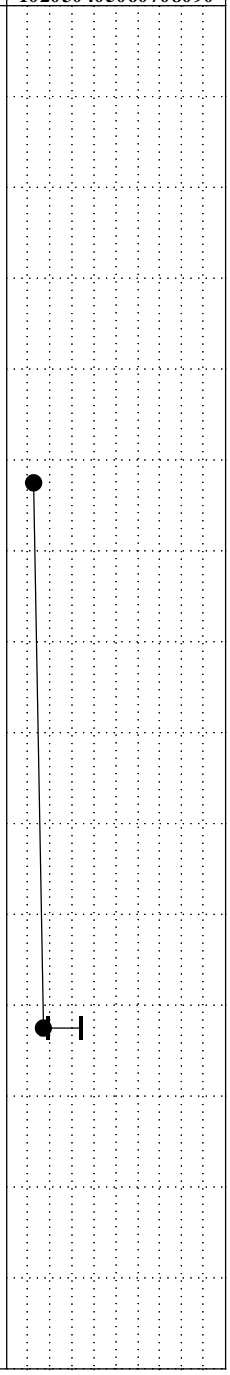
GeoStrata Rep: N. F.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-13
Sheet 1 of 1

LOCATION
NORTHING 4,477,669.00 EASTING 4,477,669.00 ELEVATION 5,001-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout					
					SM	Silty SAND - dense, moist, light brown					
1											
	5				CL	Lean CLAY - medium stiff, moist, brown, iron staining throughout		12.3	88.2		
2											
3	10						100.1	16.7	85.9	34	15
						Bottom of Test Pit @ 12 Feet					
4											

Moisture Content and Atterberg Limits



GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 13

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J. M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-14
Sheet 1 of 1

LOCATION
NORTHING 4,477,536.00 EASTING 4,477,536.00 ELEVATION 4,987-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					ML	SILT - stiff, moist, tan, iron staining throughout						
1								14.8	97.2			●
					CL	Lean CLAY - stiff, moist, brown, iron staining throughout						
	5											
2						- orange mottling						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 14

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J. M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-15
Sheet 1 of 1

LOCATION
NORTHING 4,477,389.00 EASTING 4,477,389.00 ELEVATION 4,975-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy Lean CLAY - dark brown, moist, organics throughout						
					CL	Lean CLAY - stiff to hard, moist, light brown with white mottling						
1							96.8	15.5	97.2	32	11	
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 15

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: A. Peay
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-16
Sheet 1 of 1

LOCATION
NORTHING 4,477,972.00 EASTING 4,477,972.00 ELEVATION 5,073-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					ML	Sandy SILT - stiff, moist, tan with orange mottling						
1					SM	Silty SAND - medium dense, moist, light brown						
	5											
2												
					SM	Silty SAND with cobbles and boulders - medium dense, moist, light brown, occasional boulders up to 2 feet in diameter						
3	10											
						Bottom of Test Pit @ 11 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 16

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: A. Peay
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-17
Sheet 1 of 1

LOCATION
NORTHING 4,477,823.00 EASTING 4,477,823.00 ELEVATION 5,040-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy Lean CLAY - dark brown, moist						
					CL	Sandy Lean CLAY - hard, moist, dark brown, occasional pea sized gravels throughout		12.8	69.9	41	19	
1					CL-ML	Silty CLAY - hard, moist, tan						
	5				CL-ML	Silty CLAY - hard, moist, grey with orange mottling, sand is fine-grained						
2												
3	10											
						Bottom of Test Pit @ 11 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 17

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-18
Sheet 1 of 1

LOCATION
NORTHING 4,477,682.00 EASTING 4,477,682.00 ELEVATION 5,016-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy Lean CLAY - dark brown, moist, organics throughout						
					CL	Lean CLAY - stiff, moist, light brown						
1							88.6	20.5	91.7	42	15	
	5											
					CL	Lean CLAY with sand - stiff, moist, brown with orange mottling, sand was observed to be fine-grained, clay was finley laminated						
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 18

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-21
Sheet 1 of 1

LOCATION
NORTHING 4,477,818.00 EASTING 4,477,818.00 ELEVATION 5,060-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					ML	Sandy SILT - stiff, moist, tan, minor cementation						
1												
	5											
2												
					SP	Poorly Graded SAND with gravel - medium dense, moist, dark brown, subrounded gravel up to 3 inches in diameter						
3	10					- subangular to subrounded cobbles and boulders up to 13 inches in diameter						
4						Bottom of Test Pit @ 13 Feet						

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 19

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-22
Sheet 1 of 1

LOCATION
NORTHING 4,477,680.00 EASTING 4,477,680.00 ELEVATION 5,033-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL; Lean CLAY - moist, brown, organics throughout						
					CL	Lean CLAY - medium stiff, moist, light brown, pinhole structures from 2 to 4 feet						
1							92.8	22.1	90.7	40	16	
	5					- orange mottling						
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 20

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-24
Sheet 1 of 1

LOCATION
NORTHING 4,477,820.00 EASTING 4,477,820.00 ELEVATION 5,085-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL; Lean CLAY - moist, brown, organics throughout						
					SM	Silty SAND - dense, moist, light brown						
1									13.3			
					SP	Poorly Graded SAND - medium dense, moist, reddish brown						
	5											
2												
						- rounded cobbles and boulders up to 12 inches in diameter						
3	10											
4						Bottom of Test Pit @ 13 Feet						

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-25
Sheet 1 of 1

LOCATION
NORTHING 4,477,672.00 EASTING 4,477,672.00 ELEVATION 5,047-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL; Lean CLAY - moist, brown, organics throughout						
					SC	Clayey SAND - dense, moist, light brown						
1								5.1	37.3	27	9	
	5											
					SP	Poorly Graded SAND - medium dense, moist, reddish brown						
2						- rounded cobbles and boulders up to 24 inches in diameter						
						- trackhoe refusal						
3	10					Bottom of Test Pit @ 9 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 22

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: A. Peay
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-26
Sheet 1 of 1

LOCATION
NORTHING 4,478,261.00 EASTING 4,478,261.00 ELEVATION 5,115-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SC-SM	Silty Clayey SAND - dense, moist, tan, large root casts throughout						
1								3.3	27.9	25	7	
					SP	Poorly Graded SAND - medium dense, moist, dark brown						
	5											
					ML	SILT - hard, moist, tan, medium cementation with pinhole structures throughout						
2												
					SP	Poorly Graded SAND - medium dense, moist, brown, coarse grained sand						
3	10				SM	Silty SAND - medium dense, moist, tan						
						Bottom of Test Pit @ 11 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 23

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: A. Peay
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-27
Sheet 1 of 1

LOCATION
NORTHING 4,478,414.00 EASTING 4,478,414.00 ELEVATION 5,127-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					GM	Silty GRAVEL with sand - medium dense, moist, tan, occasional cobbles throughout						
1												
	5								22.7	NP	NP	
					ML	SILT with gravel - hard, moist, brown with yellow and reddish brown mottling,						
2												
						Bottom of Test Pit @ 8 Feet						
3	10											
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 24

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: A. Peay
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-28
Sheet 1 of 1

LOCATION
NORTHING 4,478,254.00 EASTING 4,478,254.00 ELEVATION 5,138-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL; Lean CLAY - moist, brown, organics throughout						
					SM	Silty SAND with gravel - dense, moist, light brown, subrounded cobbles up to 7 inches in diameter						
1												
	5											
2												
3	10					Bottom of Test Pit @ 10 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 25

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: A. Peay
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-29
Sheet 1 of 1

LOCATION
NORTHING 4,478,116.00 EASTING 4,478,116.00 ELEVATION 5,111-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SP	Poorly Graded SAND with silt - medium dense, moist, reddish brown, pinhole structures throughout						
					SP-SM	Poorly Graded SAND with silt - medium dense, moist, brown						
1									11.9			
	5											
					GP	Poorly Graded GRAVEL with silt and clay - very dense, brown with yellow and orange mottling, moist						
2												
3	10											
						Bottom of Test Pit @ 10.5 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 26

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-30
Sheet 1 of 1

LOCATION
NORTHING 4,477,967.00 EASTING 4,477,967.00 ELEVATION 5,098-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SM	Silty SAND - dense, moist, light brown						
1												
	5						82.9	23.0	44.7	NP	NP	●
					ML	SILT - stiff, moist, tan						
2												
					SP	Poorly Graded SAND with gravel - medium dense, moist, reddish brown, subrounded gravel and cobbles up to 8 inches in diameter						
3	10					Bottom of Test Pit @ 10 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 27

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-31
Sheet 1 of 1

LOCATION
NORTHING 4,478,121.00 EASTING 4,478,121.00 ELEVATION 5,135-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					ML	Sandy SILT - stiff, moist, tan, minor cementation						
					GM	Silty GRAVEL - dense, moist, reddish brown, subangular cobbles and boulders up to 30 inches in diameter						
1												
	5											
2												
3	10											
						Bottom of Test Pit @ 11 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 28

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-32
Sheet 1 of 1

LOCATION
NORTHING 4,478,145.00 EASTING 4,478,145.00 ELEVATION 5,222-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SP	Poorly Graded SAND with gravel - medium dense, moist, dark brown, subrounded gravel up to 6 inches in diameter						
1												
	5											
2												
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 29

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-33
Sheet 1 of 1

LOCATION
NORTHING 4,477,969.00 EASTING 4,477,969.00 ELEVATION 5,128-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					GM	Silty GRAVEL - dense, moist, brown with gray mottling, occasional cobbles throughout						
						- grey						
1												
	5								17.4			
2						- light brown						
3	10					Bottom of Test Pit @ 10 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 30

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-34
Sheet 1 of 1

LOCATION
NORTHING 4,477,820.00 EASTING 4,477,820.00 ELEVATION 5,102-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL; Lean CLAY - moist, brown, organics throughout						
					SM	Silty SAND - dense, moist, light brown						
1												
	5							7.5	43.1			●
2												
					SP	Poorly Graded SAND - medium dense, moist, light brown						
3	10					Bottom of Test Pit @ 10 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 31

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-35
Sheet 1 of 1

LOCATION
NORTHING 4,477,969.00 EASTING 4,477,969.00 ELEVATION 5,147-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					SC	Clayey SAND - dense, moist, brown						
1					GM	Silty GRAVEL- very dense, moist, grayish brown, cobbles and boulders up to 24 inches in diameter						
	5											
2												
						- trackhoe refusal Bottom of Test Pit @ 8 Feet						
3	10											
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 32

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-36
Sheet 1 of 1

LOCATION
NORTHING 4,478,117.00 EASTING 4,478,117.00 ELEVATION 5,235-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					GM	Silty GRAVEL - dense, moist, brown, gravels average 2 to 4 inches in diameter		13.9	47.8			●
1												
					SP	Poorly Graded SAND with gravel - medium dense, moist, brown, subrounded gravels and cobbles up to 6 inches in diameter						
	5											
2												
3	10				GP	Poorly Graded GRAVEL with sand - medium dense, moist, tan, occasional cobbles throughout						
						Bottom of Test Pit @ 12 Feet						
4												

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 33

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-37
Sheet 1 of 1

LOCATION
NORTHING 4,478,262.00 EASTING 4,478,262.00 ELEVATION 5,208-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty CLAY with gravel - dark brown, moist, organics throughout						
					GM-GC	Silty GRAVEL with clay - dense to very dense, moist, light brown						
1						- orange and brown mottling						
	5											
						- cobbles and boulders up to 12 inches in diameter						
2												
						Bottom of Test Pit @ 8 Feet						
3	10											
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 34

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-38
Sheet 1 of 1

LOCATION
NORTHING 4,478,405.00 EASTING 4,478,405.00 ELEVATION 5,342-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty CLAY with gravel - dark brown, moist, organics throughout						
					GM	Silty GRAVEL - dense to very dense, moist, light brown, cobbles and boulders up to 12 inches in diameter						
1												
	5											
2												
						-Refusal @ 8 feet Bottom of Test Pit @ 8 Feet						
3	10											
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 35

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-39
Sheet 1 of 1

LOCATION
NORTHING 4,478,551.00 EASTING 4,478,551.00 ELEVATION 5,348-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty CLAY with gravel - dark brown, moist, organics throughout						
					GM	Silty GRAVEL - dense to very dense, moist, light brown, cobbles and boulders up to 12 inches in diameter						
1												
	5											
						-Refusal @ 6 feet						
2						Bottom of Test Pit @ 6 Feet						
3	10											
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 36

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-40
Sheet 1 of 1

LOCATION
NORTHING 4,478,551.00 EASTING 4,478,551.00 ELEVATION 5,416-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty CLAY with gravel - dark brown, moist, organics throughout						
					GP	Poorly Graded GRAVEL with silt and sand - dense to very dense, moist, light brown with orange mottling, cobbles up to 8 inches in diameter						
1												
	5											
						- boulders up to 18 inches in diameter						
2						- increased moisture						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 37

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-41
Sheet 1 of 1

LOCATION
NORTHING 4,478,697.00 EASTING 4,478,697.00 ELEVATION 5,382-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy Lean Clay with gravel - dark brown, moist, organics throughout						
					CL	Lean CLAY - Lean CLAY - stiff, reddish brown with white mottling, moist						
1												
	5											
2												
					CL	Sandy Lean CLAY with gravel - stiff to hard, moist, light brown, gravels and cobbles up to 10 inches in diameter						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 38

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-42
Sheet 1 of 1

LOCATION
NORTHING 4,478,843.00 EASTING 4,478,843.00 ELEVATION 5,461-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Sandy Lean Clay with gravel - dark brown, moist, organics throughout						
					CL	Lean CLAY - Lean CLAY - stiff, reddish brown with white mottling, moist						
1												
	5											
					CL	Sandy Lean CLAY with gravel - stiff to hard, moist, light brown, gravels and cobbles up to 10 inches in diameter						
2						Bottom of Test Pit @ 6 Feet						
3	10											
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 39

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-48
Sheet 1 of 1

LOCATION
NORTHING 4,478,697.00 EASTING 4,478,697.00 ELEVATION 5,423-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL; Lean CLAY - moist, brown, organics throughout						
					GC	Clayey GRAVEL - dense, moist, light brown						
1												
	5											
2												
					SP	Poorly Graded SAND - medium dense, moist, reddish brown						
3	10											
						Bottom of Test Pit @ 11 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 40

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-50
Sheet 1 of 1

LOCATION
NORTHING 4,478,401.00 EASTING 4,478,401.00 ELEVATION 5,355-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty CLAY with gravel - dark brown, moist, organics throughout						
					GM	Silty GRAVEL - dense to very dense, moist, light brown with orange mottling, cobbles and boulders up to 12 inches in diameter						
1												
	5											
						-Refusal @ 6 feet						
2												
3	10					Bottom of Test Pit @ 11 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 41

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/3/20
COMPLETED:	12/3/20
BACKFILLED:	12/3/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO:
ME-TP-51
Sheet 1 of 1

LOCATION
NORTHING 4,478,257.00 EASTING 4,478,257.00 ELEVATION 5,318-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit — Moisture Content — Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL; Lean CLAY - moist, brown, organics throughout						
					GM	Silty GRAVEL - dense, moist, reddish brown, cobbles and boulders up to 12 inches in diameter						
1												
	5											
2												
					SP	Poorly Graded SAND - medium dense, moist, reddish brown						
3	10											
						Bottom of Test Pit @ 12 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 42

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DATE	
STARTED:	12/4/20
COMPLETED:	12/4/20
BACKFILLED:	12/4/20

D.R. Horton
Micron Property
Lehi, Utah
Project Number 589-100

GeoStrata Rep: J.M.
Rig Type: Kamatsu 200 Trackhoe

TEST PIT NO: ME-TP-55
Sheet 1 of 1

LOCATION
NORTHING 4,478,121.00 EASTING 4,478,121.00 ELEVATION 5,191-ft

DEPTH METERS	DEPTH FEET	SAMPLES	WATER LEVEL	GRAPHICAL LOG	UNIFIED SOIL CLASSIFICATION	MATERIAL DESCRIPTION	Dry Density(pcf)	Moisture Content %	Percent minus 200	Liquid Limit	Plasticity Index	Moisture Content and Atterberg Limits (Plastic Limit – Moisture Content – Liquid Limit; 10 20 30 40 50 60 70 80 90)
0	0					TOPSOIL - Silty SAND with gravel - dark brown, moist, organics throughout						
					GM	Silty GRAVEL with sand - dense to very dense, moist, brown, subrounded gravels and cobbles up to 6 inches in diameter						
1								17.5	20.4			●
	5											
2												
3	10											
						Bottom of Test Pit @ 11 Feet						
4												

GeoStrata

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SAMPLE TYPE
- GRAB SAMPLE
- 2.5" O.D. THIN-WALLED HAND SAMPLER

WATER LEVEL
- MEASURED
- ESTIMATED

NOTES:

Plate
B - 43

2020 LOG OF TEST PIT - PLATE (B) 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

Unified Soil Classification Per ASTM D 2488

Primary Divisions			Group Symbol	Group Name
COARSE-GRAINED SOILS more than 50% retained on the No. 200 Sieve	GRAVEL More than half of the coarse fraction is larger than the #4 sieve	Clean Gravel	GW	Well Graded GRAVEL
			GP	Poorly Graded GRAVEL
		Gravel with Duel Classifications	GW-GM	Well Graded GRAVEL with silt
			GP-GM	Poorly Graded GRAVEL with silt
			GW-GC	Well Graded GRAVEL with clay
			GP-GC	Poorly Graded GRAVEL with clay
		Gravel with Fines	GM	Silty GRAVEL
			GC	Clayey GRAVEL
			GC-GM	Silty, Clayey GRAVEL
	SAND More than half of the coarse fraction is smaller than the #4 sieve	Clean Sand	SW	Well Graded SAND
			SP	Poorly Graded SAND
		Sand with Dual Classifications	SW-SM	Well Graded SAND with silt
			SP-SM	Poorly Graded SAND with silt
			SW-SC	Well Graded SAND with clay
			SP-SC	Well Graded SAND with clay
		Sand with Fines	SM	Silty SAND
			SC	Clayey SAND
			SC-SM	Silty, Clayey SAND
FINE-GRAINED SOILS 50% or more passes No. 200 Sieve	SILTY & CLAY less than 50%	Inorganic	CL	Lean CLAY
			ML	SILT
			CL-ML	Silty CLAY
		Organic	OL	Organic CLAY or Organic SILT
	SILTY & CLAY LL 50% or more	Inorganic	CH	Fat CLAY
			MH	Elastic SILT
		Organic	OH	Organic CLAY or Organic SILT
	Highly Organic Soils		PT	Peat

Exploration Log Key

Sample Symbols	Ground Water Symbol	
Auger Cuttings	Measured Groundwater Elevation	
California Sampler	Estimated Groundwater Elevation	
	Relative Density	**SPT N (blows/ft)**
Rock Core	Very Loose	0 to 4
	Loose	5 to 10
	Med. Dense	11 to 30
Bag or Block Sample	Dense	31 to 50
	Very Dense	>51
	Consistency	**SPT N (blows/ft)**
Modified California Sampler	Very Soft	0 to 1
	Soft	2 to 4
No Recovery	Med. Stiff	5 to 8
	Stiff	9 to 15
	Very Stiff	16 to 30
Split Spoon	Hard	31 to 60
	Very Hard	>61
	Modifiers	
Shelby Tube	Description	Percentage
	Trace	less than 5
Dames and More Sampler	Some	5 to 12
	With	more than 12

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Soil Symbols and Description Key

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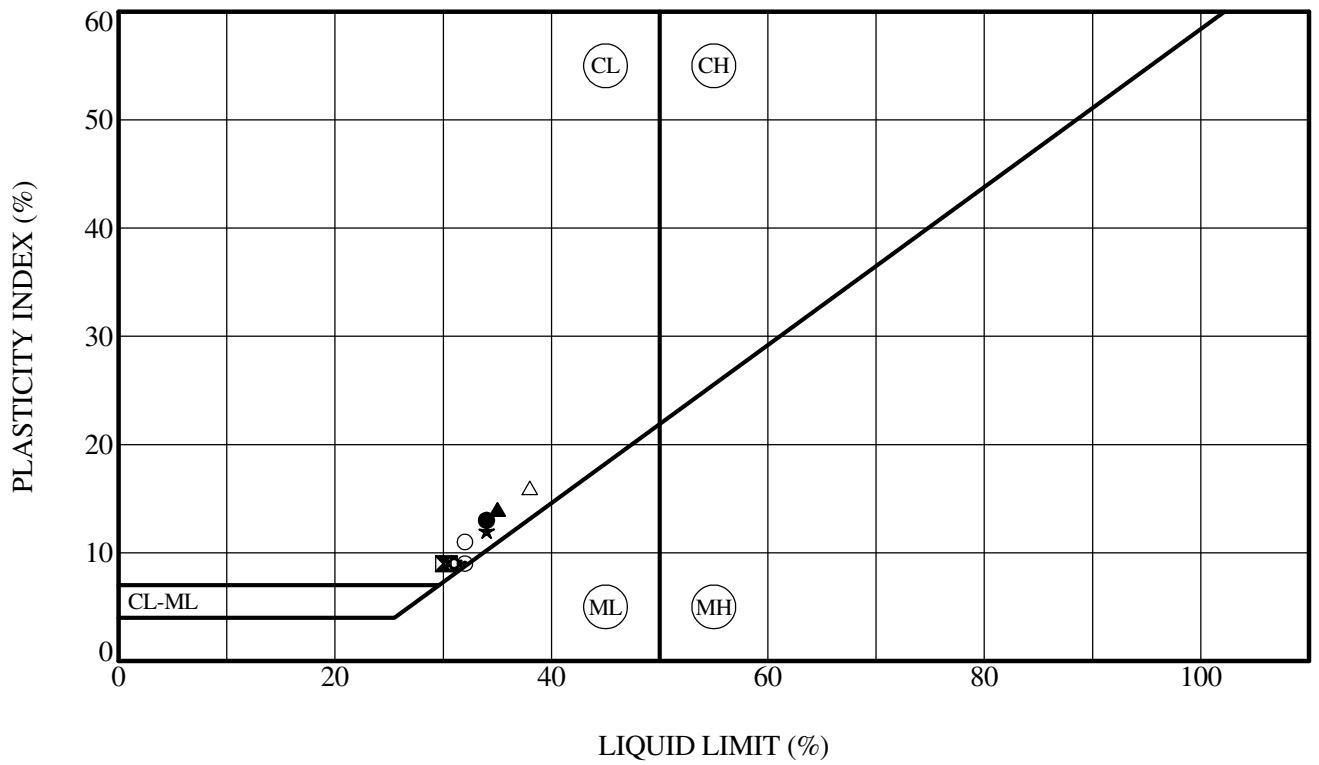
Micron Property
Lehi/Draper, Utah
Project Number: 589-100

Plate B-44

APPENDIX C

Test Pit No.	Sample Depth (feet)	USCS Soil Classification	Natural Moisture Content (%)	Natural Dry Density (pcf)	Optimum Moisture Content (%)	Maximum Dry Density (pcf)	Gradation			Atterberg		Collapse (%)	CBR (%)
							Gravel (%)	Sand (%)	Fines (%)	LL	PI		
ME-TP-01	3	SM	6.4				37.3	40.1	22.6				
ME-TP-02	3	CL	20.8	85.5					63.7	34	13	0.37	
ME-TP-03	3.5	GM	7.3				52.2	30.4	17.4				
ME-TP-03	5	CL	19.7	96.4					92.4	30	9		
ME-TP-03	11	CL	20.2				0.0	6.3	93.7				
ME-TP-04	1	CL	3.2		18.5	107	0.1	2.8	97.1	35	14		4.3
ME-TP-04	4	CL	10.4	98.4					92.9	34	12	0.07	
ME-TP-05	3	SM	6.5				25.2	41.3	33.5				
ME-TP-06	2	SM	6.6				30.3	43.3	26.4				
ME-TP-07	4	CL	14.2	92.3					67.8	32	9	0.09	
ME-TP-08	3	CL	17.6	95.1					90.3	31	9	0.01	
ME-TP-08	12	CL	23.3	92.9					98.8	32	11	0.01	
ME-TP-09	4	ML	18.1				0.0	3.6	96.4				
ME-TP-10	1	CL	4.4		21.8	100	0.1	15.9	84.0	38	16		3.9
ME-TP-10	5	ML	13.7	73.9					78.7	NP	NP	0.43	
ME-TP-11	7	SP-SM	5.2				3.4	90.7	5.9				
ME-TP-12	4	CL	23.6	97					93.5	32	11	0.22	
ME-TP-13	5	CL	12.3				1.2	10.6	88.2				
ME-TP-13	11	CL	16.7	100.1					85.9	34	15	0.12	
ME-TP-14	3		14.8						97.2				
ME-TP-15	3	CL	15.5	96.8					97.2	32	11	0.03	
ME-TP-17	2	CL	12.8				5.6	24.5	69.9	41	19		
ME-TP-18	3	CL	20.5	88.6					91.7	42	15	0.07	
ME-TP-22	3.5	CL	22.1	92.8					90.7	40	16	0.01	
ME-TP-24	3	SM					12.7	74.0	13.3				
ME-TP-25	3	SC	5.1				2.7	60.0	37.3	27	9		
ME-TP-26	3	SC-SM	3.3				2.3	69.8	27.9	25	7		
ME-TP-27	5	GM					42.0	35.3	22.7	NP	NP		
ME-TP-29	3	SP-SM					6.2	81.9	11.9				
ME-TP-30	5	SM	23	82.9					44.7	NP	NP	0.04	
ME-TP-33	5	GM					52.2	30.4	17.4				
ME-TP-34	5	SM	7.5				1.7	55.2	43.1				
ME-TP-36	1	GM	13.9				42.8	9.4	47.8				
ME-TP-55	3	GM	17.5				39.8	39.8	20.4				



	Sample Location	Depth (ft)	LL (%)	PL (%)	PI (%)	Fines (%)	Classification
●	**ME-TP-02**	**3.0**	**34**	**21**	**13**	**63.7**	**Sandy Lean CLAY**
⊠	**ME-TP-03**	**5.0**	**30**	**21**	**9**	**92.4**	**Lean CLAY**
▲	**ME-TP-04**	**1.0**	**35**	**21**	**14**	**97.1**	**Lean CLAY**
★	**ME-TP-04**	**4.0**	**34**	**22**	**12**	**92.9**	**Lean CLAY**
⊙	**ME-TP-07**	**4.0**	**32**	**23**	**9**	**67.8**	**Sandy Lean CLAY**
✿	**ME-TP-08**	**3.0**	**31**	**22**	**9**	**90.3**	**Lean CLAY**
○	**ME-TP-08**	**12.0**	**32**	**21**	**11**	**98.8**	**Lean CLAY**
△	**ME-TP-10**	**1.0**	**38**	**22**	**16**	**84.0**	**Lean CLAY with sand**

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ATTERBERG LIMITS' RESULTS - ASTM D 4318

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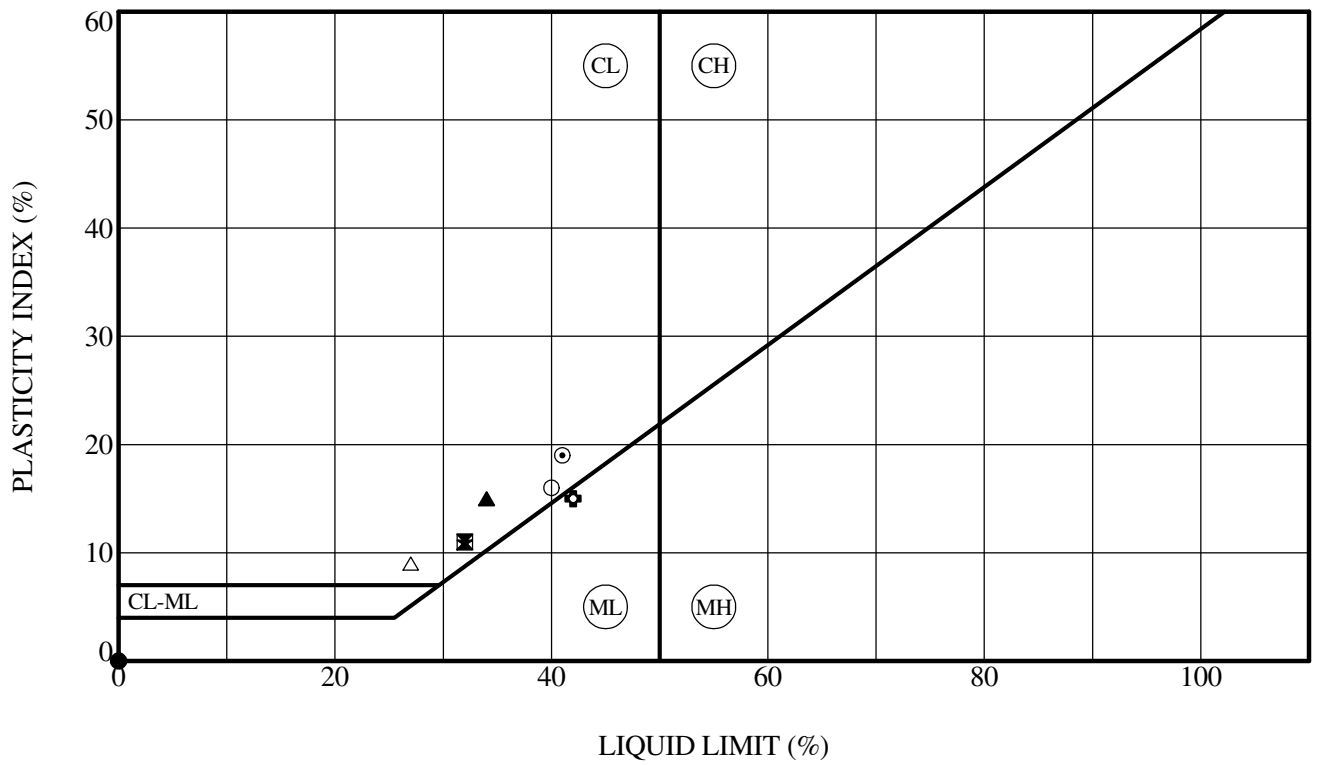
Lehi, Utah
Project Number: 589-100

Plate

C - 2

C_ATTERBERG 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	LL (%)	PL (%)	PI (%)	Fines (%)	Classification
●	**ME-TP-10**	**5.0**	**NP**	**NP**	**NP**	**78.7**	**Sandy SILT**
⊠	**ME-TP-12**	**4.0**	**32**	**21**	**11**	**93.5**	**Lean CLAY**
▲	**ME-TP-13**	**11.0**	**34**	**19**	**15**	**85.9**	**Lean CLAY**
★	**ME-TP-15**	**3.0**	**32**	**21**	**11**	**97.2**	**Lean CLAY**
⊙	**ME-TP-17**	**2.0**	**41**	**22**	**19**	**69.9**	**Sandy Lean CLAY**
✿	**ME-TP-18**	**3.0**	**42**	**27**	**15**	**91.7**	**Lean CLAY**
○	**ME-TP-22**	**3.5**	**40**	**24**	**16**	**90.7**	**Lean CLAY**
△	**ME-TP-25**	**3.0**	**27**	**18**	**9**	**37.3**	**Clayey SAND**

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ATTERBERG LIMITS' RESULTS - ASTM D 4318

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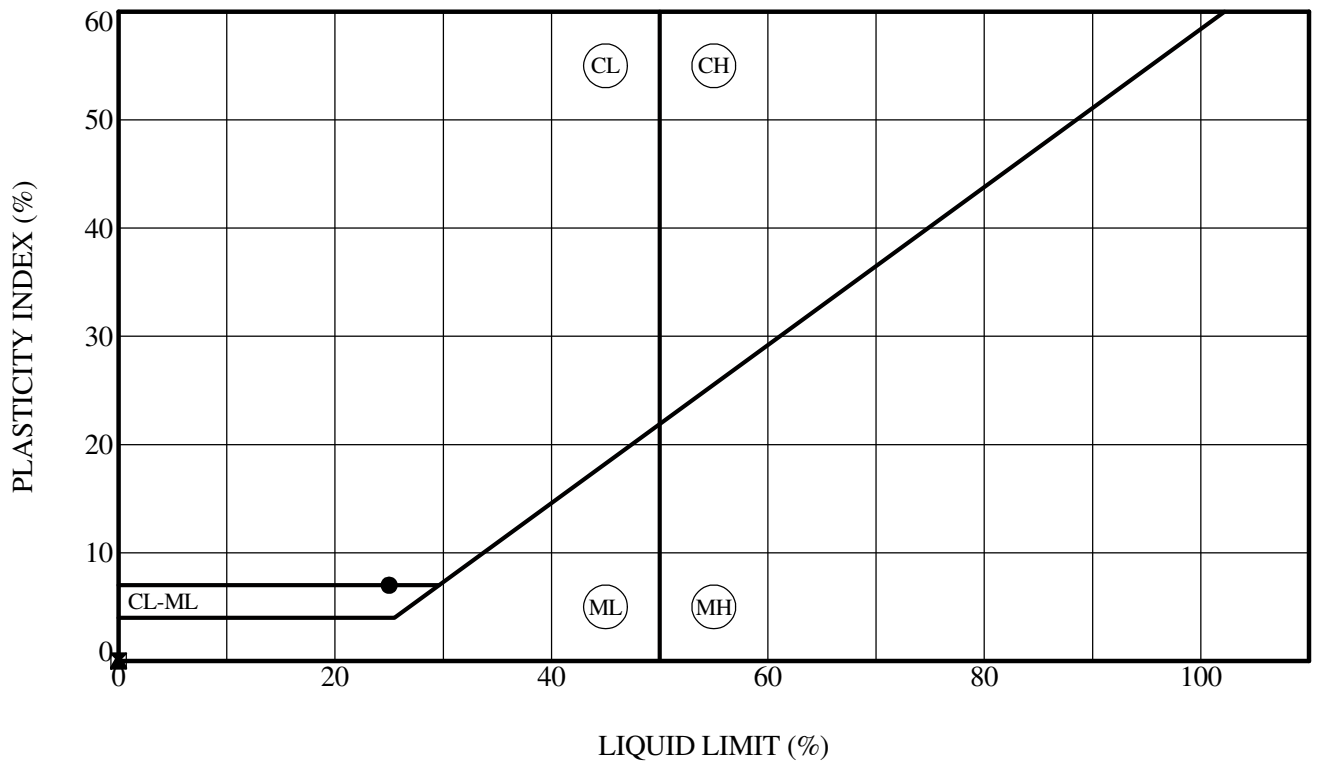
C - 3

C_ATTERBERG 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	LL (%)	PL (%)	PI (%)	Fines (%)	Classification
●	**ME-TP-26**	**3.0**	**25**	**18**	**7**	**27.9**	**Silty Clayey SAND**
⊠	**ME-TP-27**	**5.0**	**NP**	**NP**	**NP**	**22.7**	**Silty GRAVEL with sand**
▲	**ME-TP-30**	**5.0**	**NP**	**NP**	**NP**	**44.7**	**Silty SAND**

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ATTERBERG LIMITS' RESULTS - ASTM D 4318

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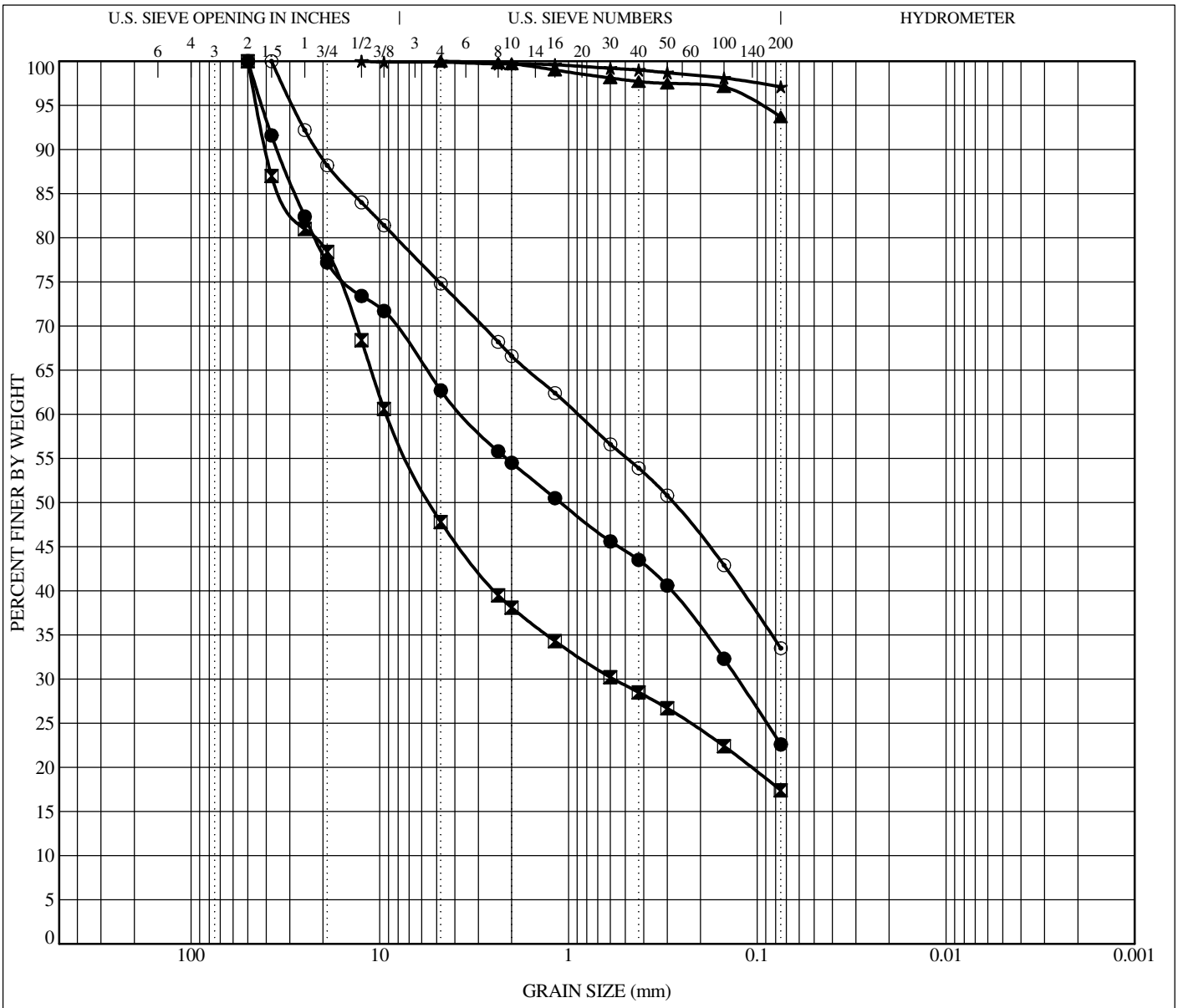
C_ATTERBERG 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Sample Location	Depth	Classification	LL	PL	PI	Cc	Cu
●	**ME-TP-01**	**3.0**	**Silty SAND with gravel**					
⊠	**ME-TP-03**	**3.5**	**Silty GRAVEL with sand**					
▲	**ME-TP-03**	**11.0**	**Lean CLAY**					
★	**ME-TP-04**	**1.0**	**Lean CLAY**	**35**	**21**	**14**		
⊙	**ME-TP-05**	**3.0**	**Silty SAND with gravel**					

	Sample Loctaion	Depth	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**ME-TP-01**	**3.0**	**50**	**3.613**	**0.127**		**37.3**	**40.1**	**22.6**	
⊠	**ME-TP-03**	**3.5**	**50**	**9.196**	**0.576**		**52.2**	**30.4**	**17.4**	
▲	**ME-TP-03**	**11.0**	**4.75**				**0.0**	**6.3**	**93.7**	
★	**ME-TP-04**	**1.0**	**12.5**				**0.1**	**2.8**	**97.1**	
⊙	**ME-TP-05**	**3.0**	**37.5**	**0.892**			**25.2**	**41.3**	**33.5**	

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GRAIN SIZE DISTRIBUTION - ASTM D422

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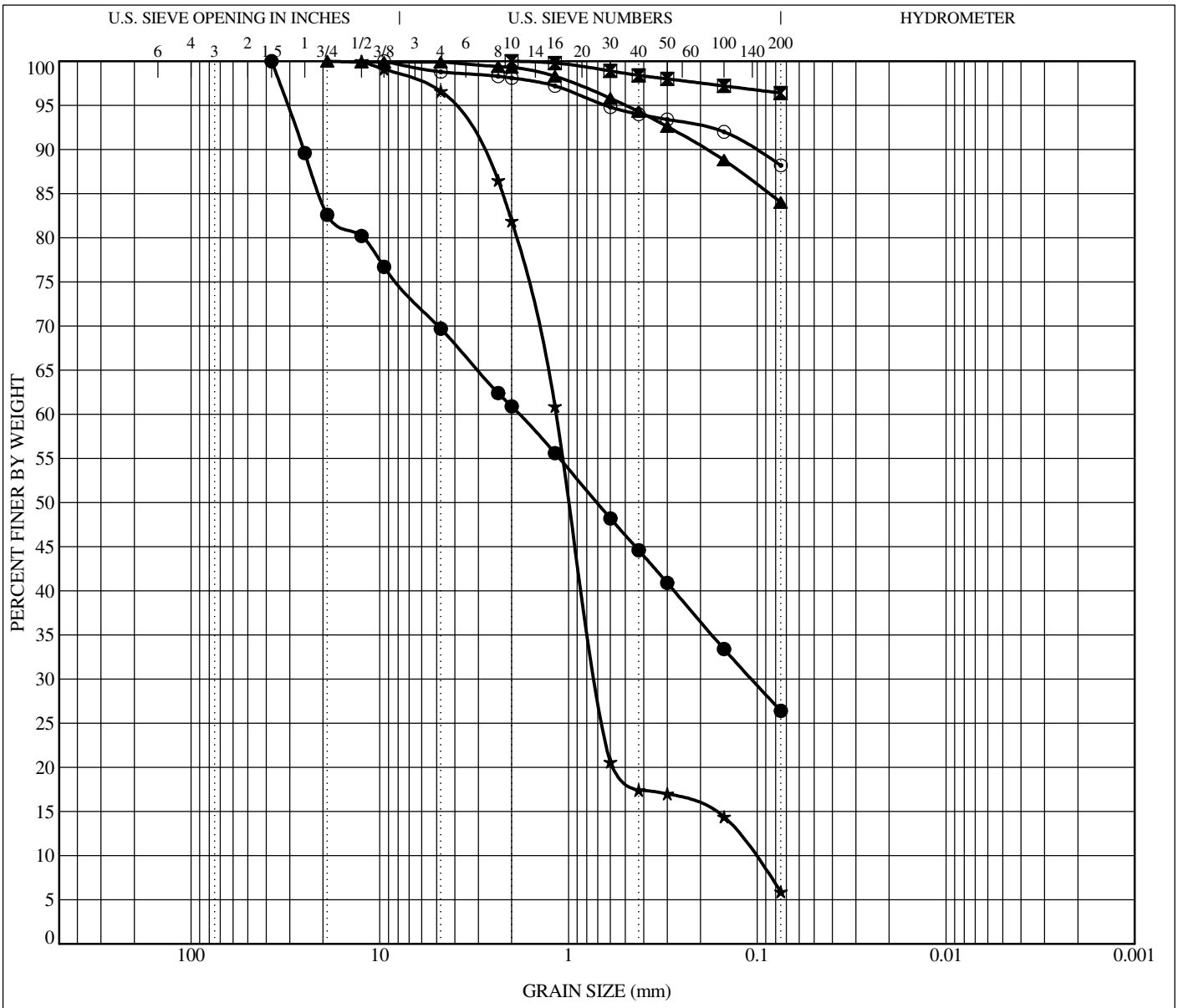
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 5

C_GSD 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Sample Location	Depth	Classification	LL	PL	PI	Cc	Cu
●	**ME-TP-06**	**2.0**	**Silty SAND with gravel**					
⊠	**ME-TP-09**	**4.0**	**SILT**					
▲	**ME-TP-10**	**1.0**	**Lean CLAY with sand**	**38**	**22**	**16**		
★	**ME-TP-11**	**7.0**	**Poorly Graded SAND with silt**				**4.05**	**11.09**
⊙	**ME-TP-13**	**5.0**	**Lean CLAY**					

	Sample Loctaion	Depth	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**ME-TP-06**	**2.0**	**37.5**	**1.829**	**0.107**		**30.3**	**43.3**	**26.4**	
⊠	**ME-TP-09**	**4.0**	**2**				**0.0**	**3.6**	**96.4**	
▲	**ME-TP-10**	**1.0**	**19**				**0.1**	**15.9**	**84.0**	
★	**ME-TP-11**	**7.0**	**12.5**	**1.162**	**0.703**	**0.105**	**3.4**	**90.7**	**5.9**	
⊙	**ME-TP-13**	**5.0**	**9.5**				**1.2**	**10.6**	**88.2**	

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GRAIN SIZE DISTRIBUTION - ASTM D422

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Lehi, Utah
Project Number: 589-100

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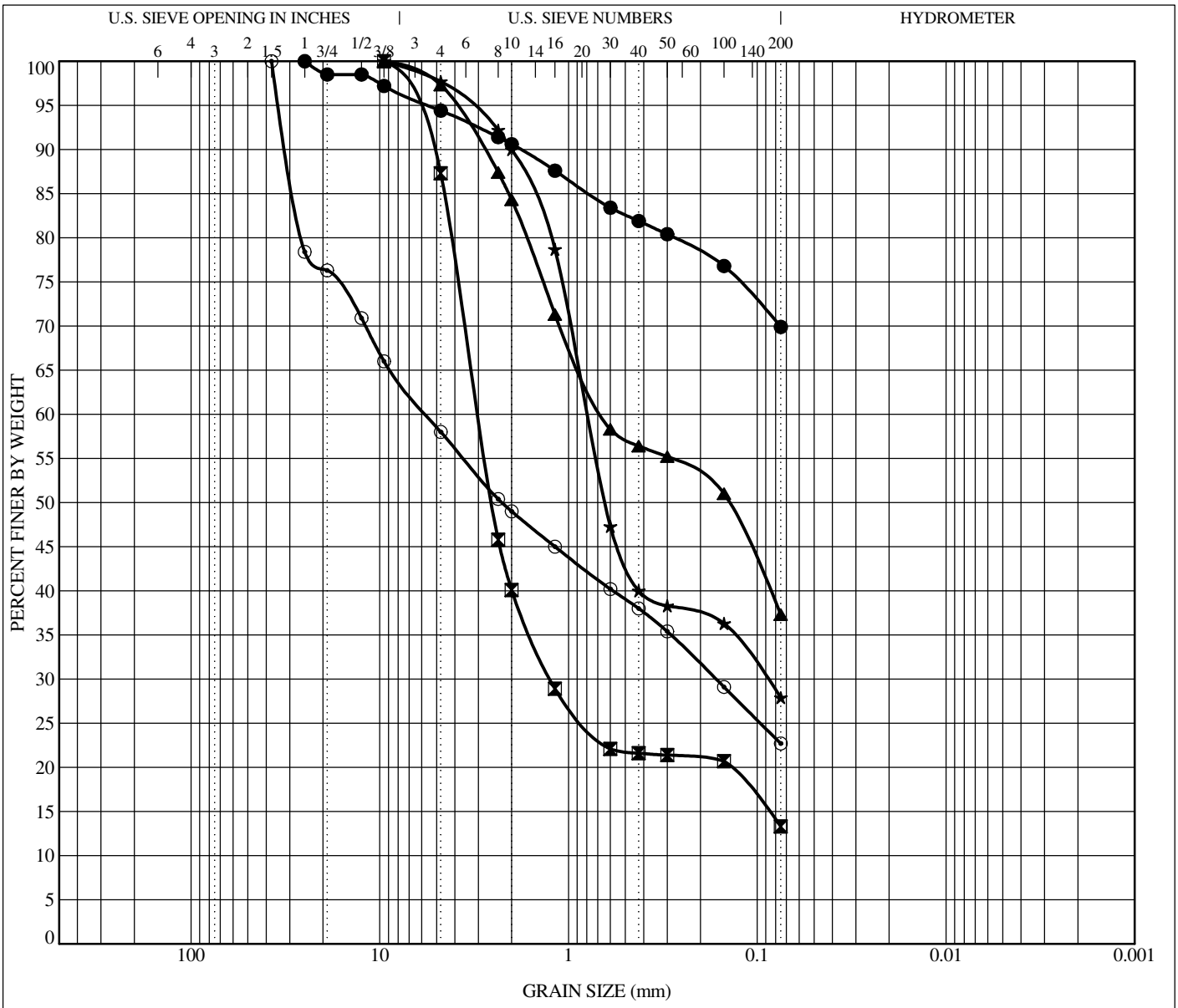
C - 6

C_GSD 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Sample Location	Depth	Classification	LL	PL	PI	Cc	Cu
●	**ME-TP-17**	**2.0**	**Sandy Lean CLAY**	**41**	**22**	**19**		
⊠	**ME-TP-24**	**3.0**	**Silty SAND**					
▲	**ME-TP-25**	**3.0**	**Clayey SAND**	**27**	**18**	**9**		
★	**ME-TP-26**	**3.0**	**Silty Clayey SAND**	**25**	**18**	**7**		
⊙	**ME-TP-27**	**5.0**	**Silty GRAVEL with sand**	**NP**	**NP**	**NP**		

	Sample Loctaion	Depth	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**ME-TP-17**	**2.0**	**25**				**5.6**	**24.5**	**69.9**	
⊠	**ME-TP-24**	**3.0**	**9.5**	**2.998**	**1.243**		**12.7**	**74.0**	**13.3**	
▲	**ME-TP-25**	**3.0**	**9.5**	**0.655**			**2.7**	**60.0**	**37.3**	
★	**ME-TP-26**	**3.0**	**9.5**	**0.789**	**0.089**		**2.3**	**69.8**	**27.9**	
⊙	**ME-TP-27**	**5.0**	**37.5**	**5.649**	**0.166**		**42.0**	**35.3**	**22.7**	

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GRAIN SIZE DISTRIBUTION - ASTM D422

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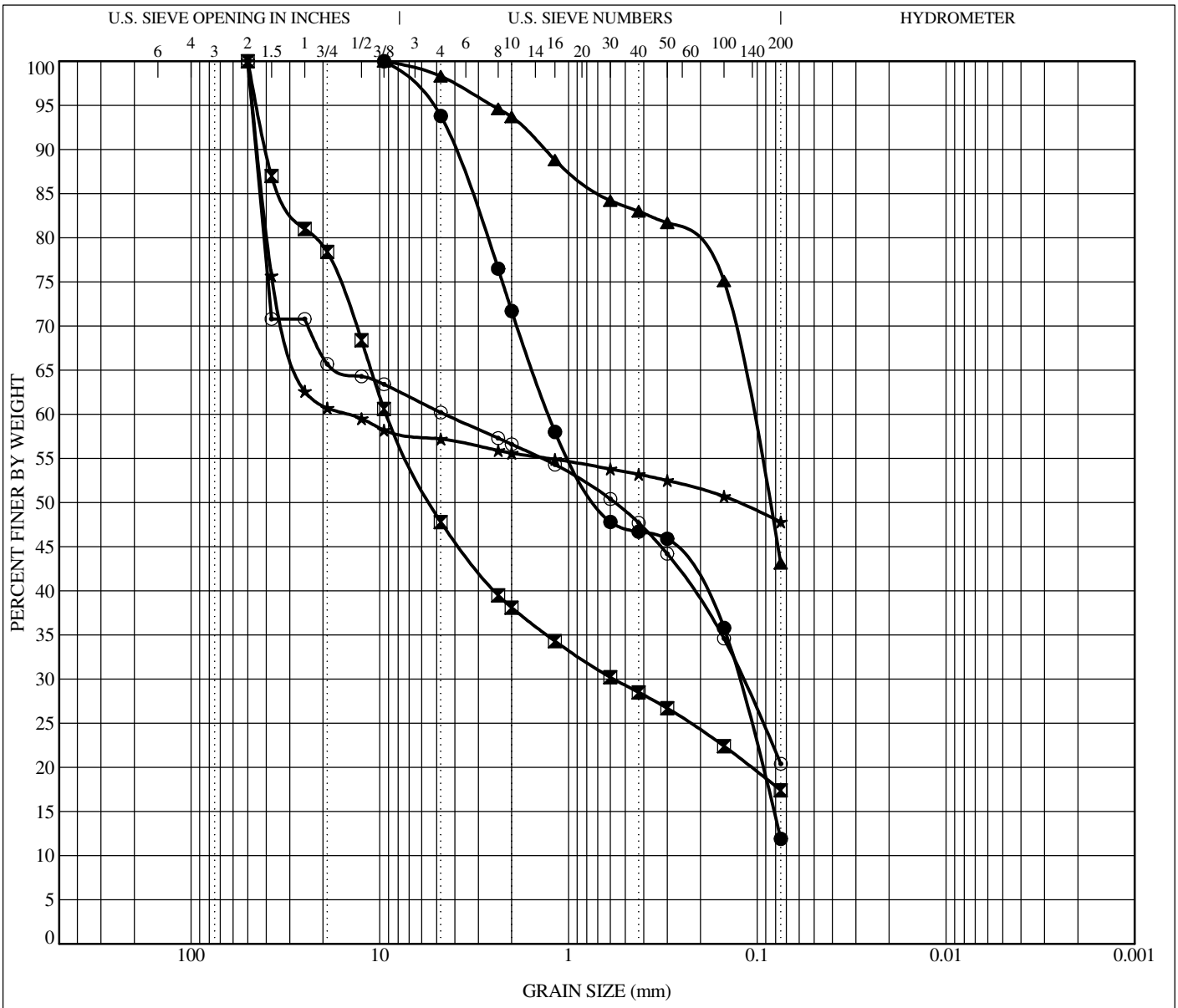
C_GSD 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Sample Location	Depth	Classification	LL	PL	PI	Cc	Cu
●	**ME-TP-29**	**3.0**	**Poorly Graded SAND with silt**				**0.18**	**17.96**
⊠	**ME-TP-33**	**5.0**	**Silty GRAVEL with sand**					
▲	**ME-TP-34**	**5.0**	**Silty SAND**					
★	**ME-TP-36**	**1.0**	**Silty GRAVEL**					
⊙	**ME-TP-55**	**3.0**	**Silty GRAVEL with sand**					

	Sample Loctaion	Depth	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**ME-TP-29**	**3.0**	**9.5**	**1.274**	**0.127**		**6.2**	**81.9**	**11.9**	
⊠	**ME-TP-33**	**5.0**	**50**	**9.196**	**0.576**		**52.2**	**30.4**	**17.4**	
▲	**ME-TP-34**	**5.0**	**9.5**	**0.108**			**1.7**	**55.2**	**43.1**	
★	**ME-TP-36**	**1.0**	**50**	**14.883**			**42.8**	**9.4**	**47.8**	
⊙	**ME-TP-55**	**3.0**	**50**	**4.526**	**0.12**		**39.8**	**39.8**	**20.4**	

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GRAIN SIZE DISTRIBUTION - ASTM D422

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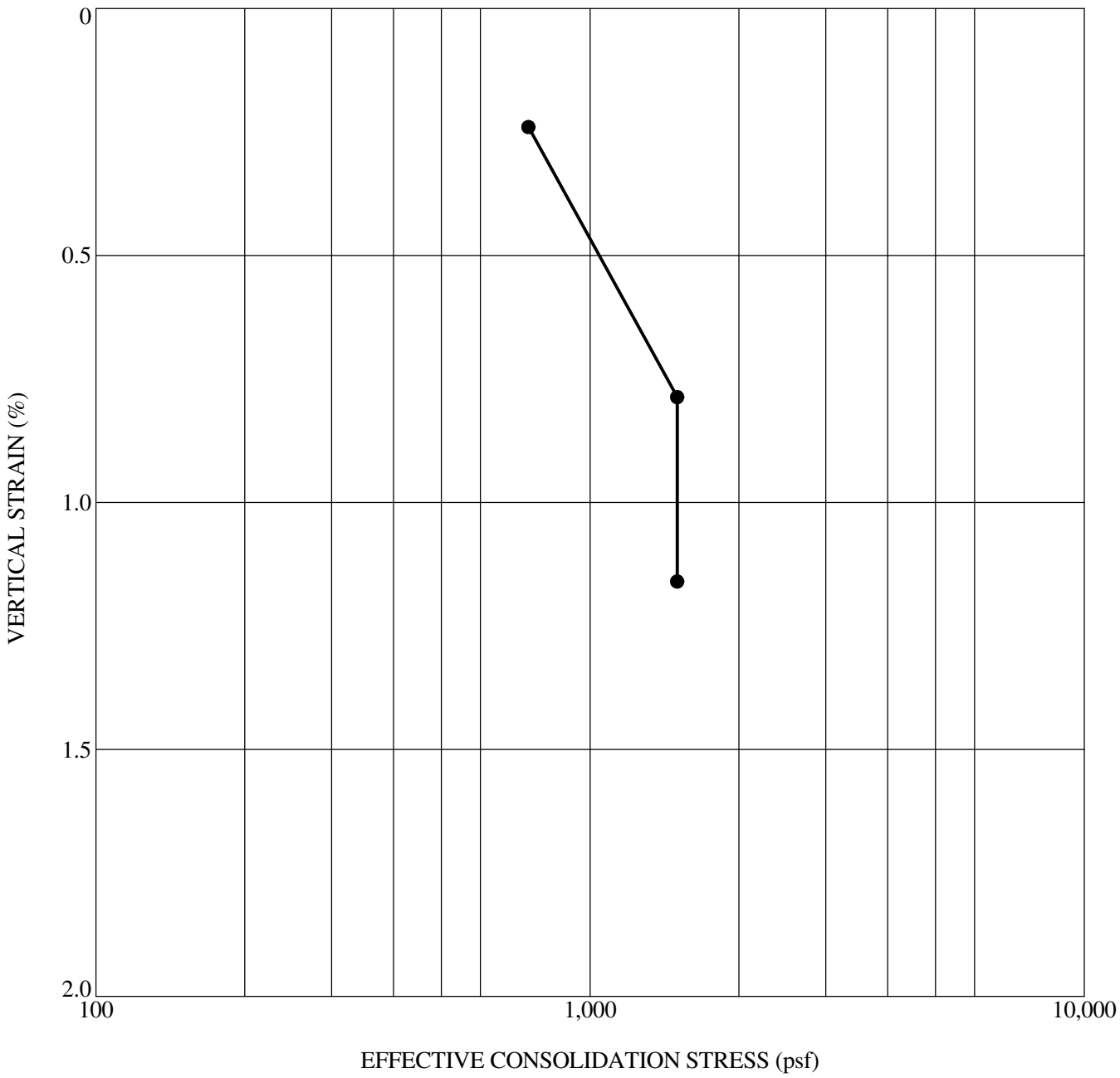
Project Number: 589-100

Plate

C - 8

C_GSD 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**ME-TP-02**	**3.0**	**Sandy Lean CLAY**	**86**	**21**	**1500**		**0.37**

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1-D SWELL/COLLAPSE TEST

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Lehi, Utah
Project Number: 589-100

Plate

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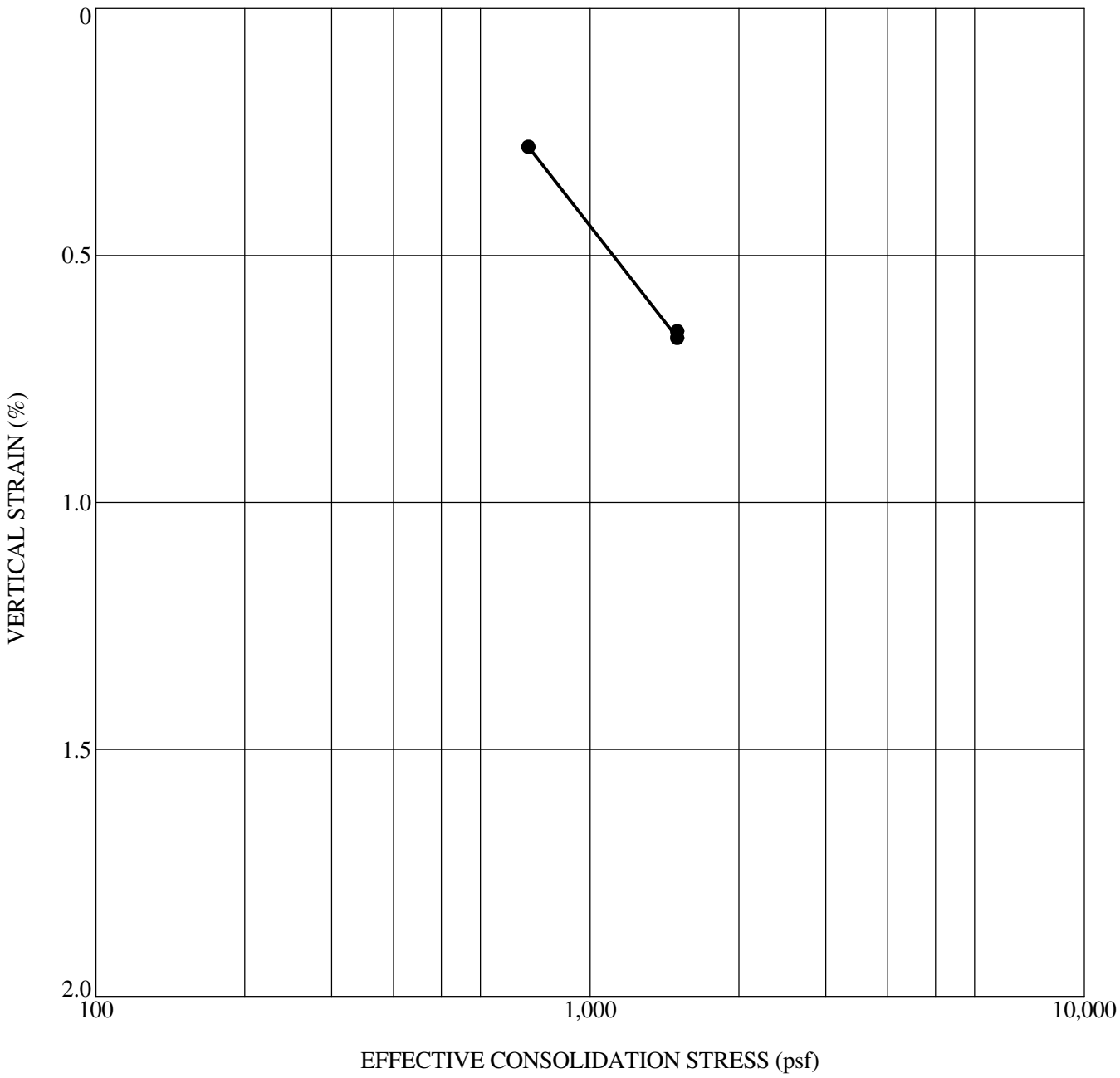
C_SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**ME-TP-03**	**5.0**	**Lean CLAY**	**96**	**22**	**1500**	**0.01**	

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1-D SWELL/COLLAPSE TEST

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Lehi, Utah
Project Number: 589-100

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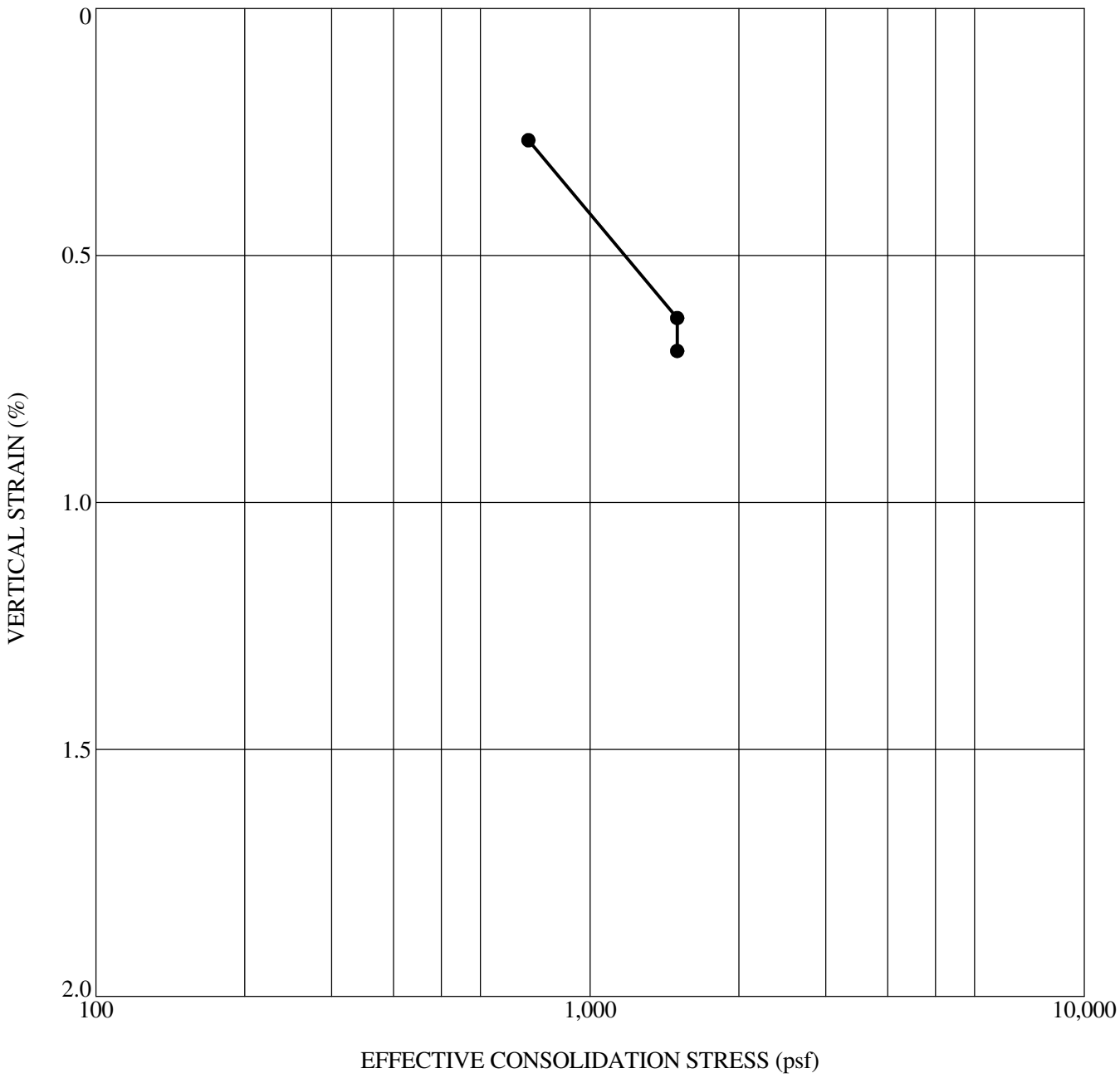
C_SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**ME-TP-04**	**4.0**	**Lean CLAY**	**98**	**10**	**1500**		**0.07**

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1-D SWELL/COLLAPSE TEST

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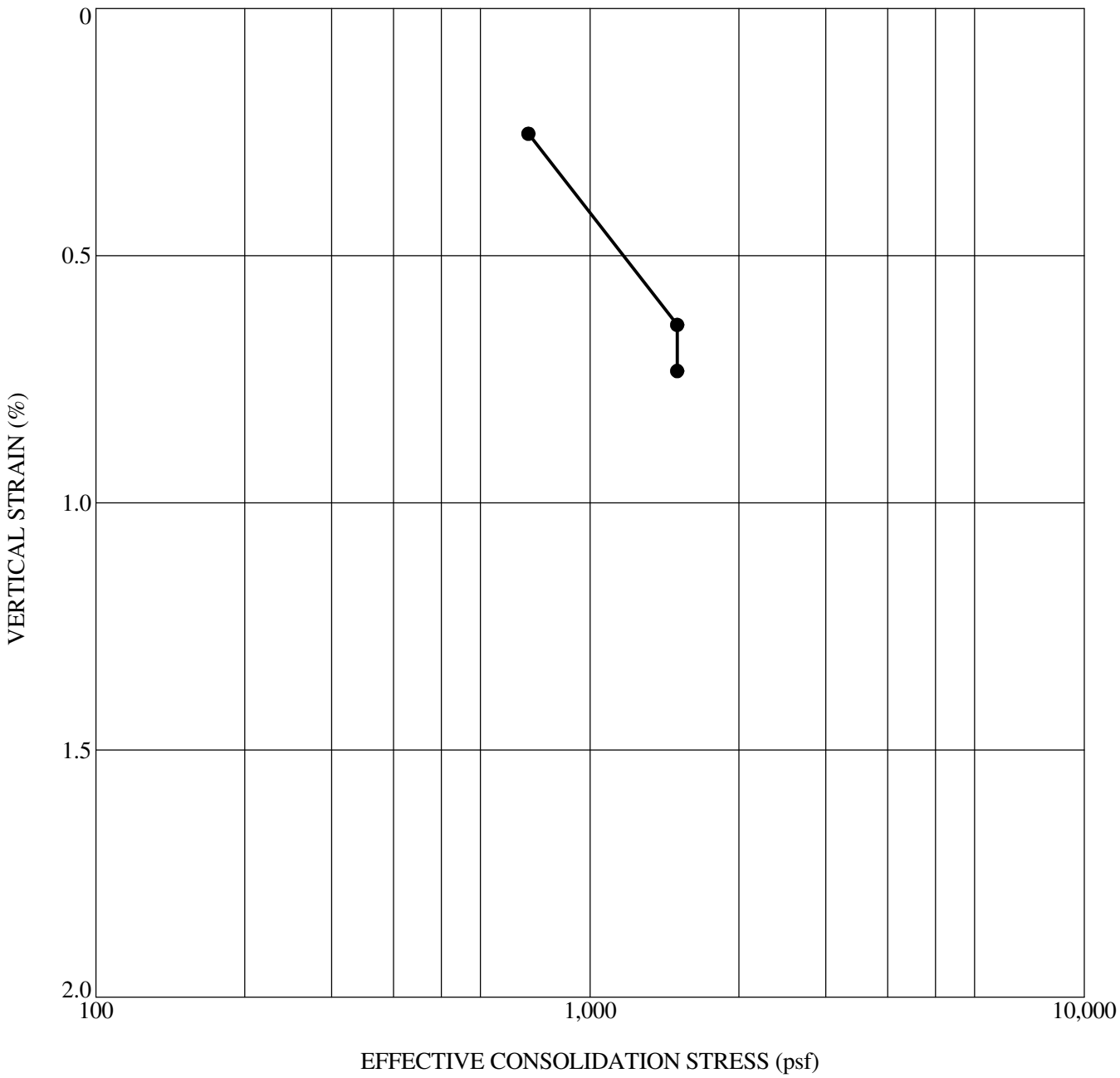
C - 11

C_SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**ME-TP-07**	**4.0**	**Sandy Lean CLAY**	**92**	**16**	**1500**		**0.09**

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1-D SWELL/COLLAPSE TEST

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Project Number: 589-100

Plate

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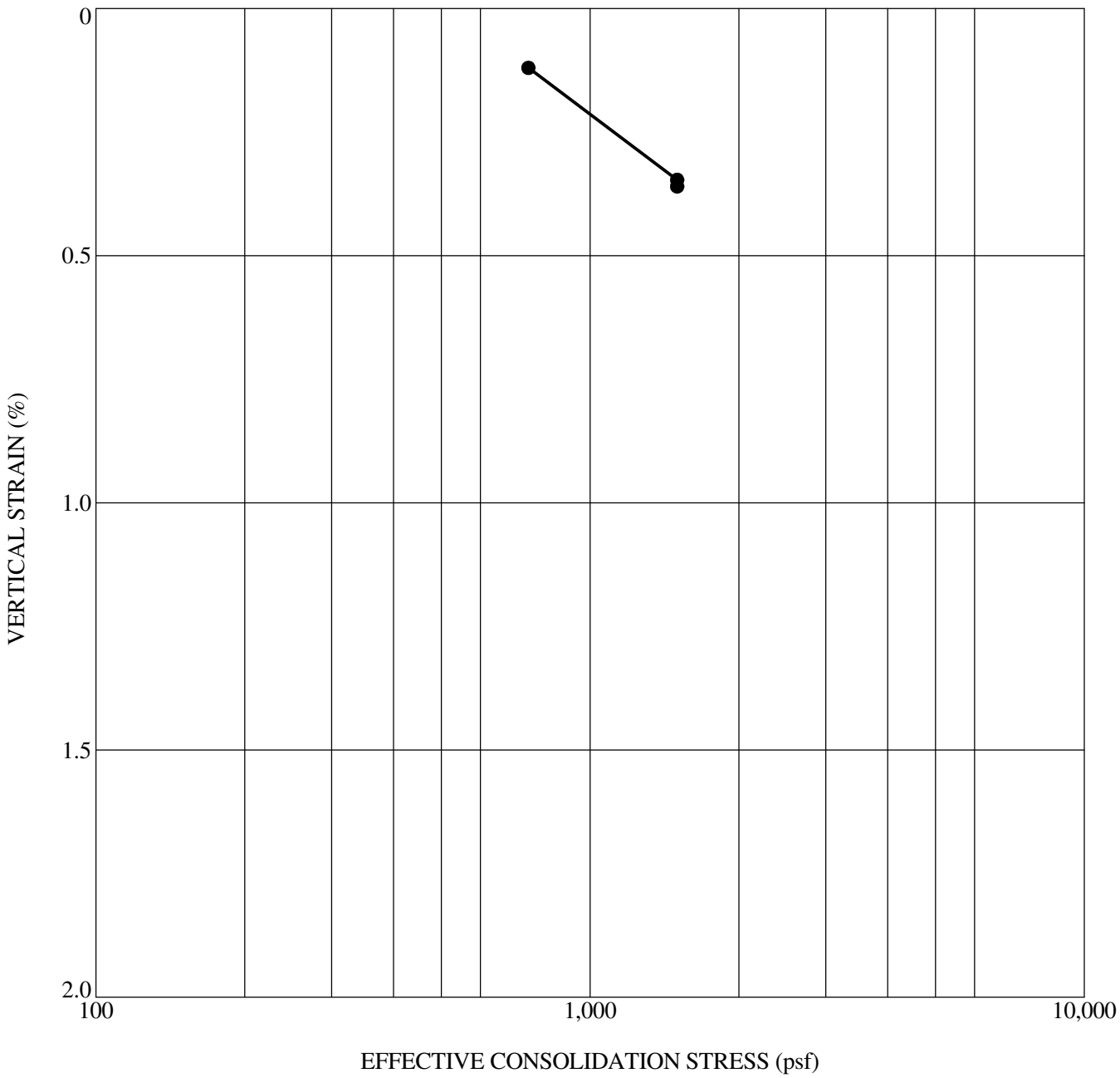
C_SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**ME-TP-08**	**3.0**	**Lean CLAY**	**95**	**15**	**1500**		**0.01**

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1-D SWELL/COLLAPSE TEST

D.R. Horton
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Project Number: 589-100

Plate

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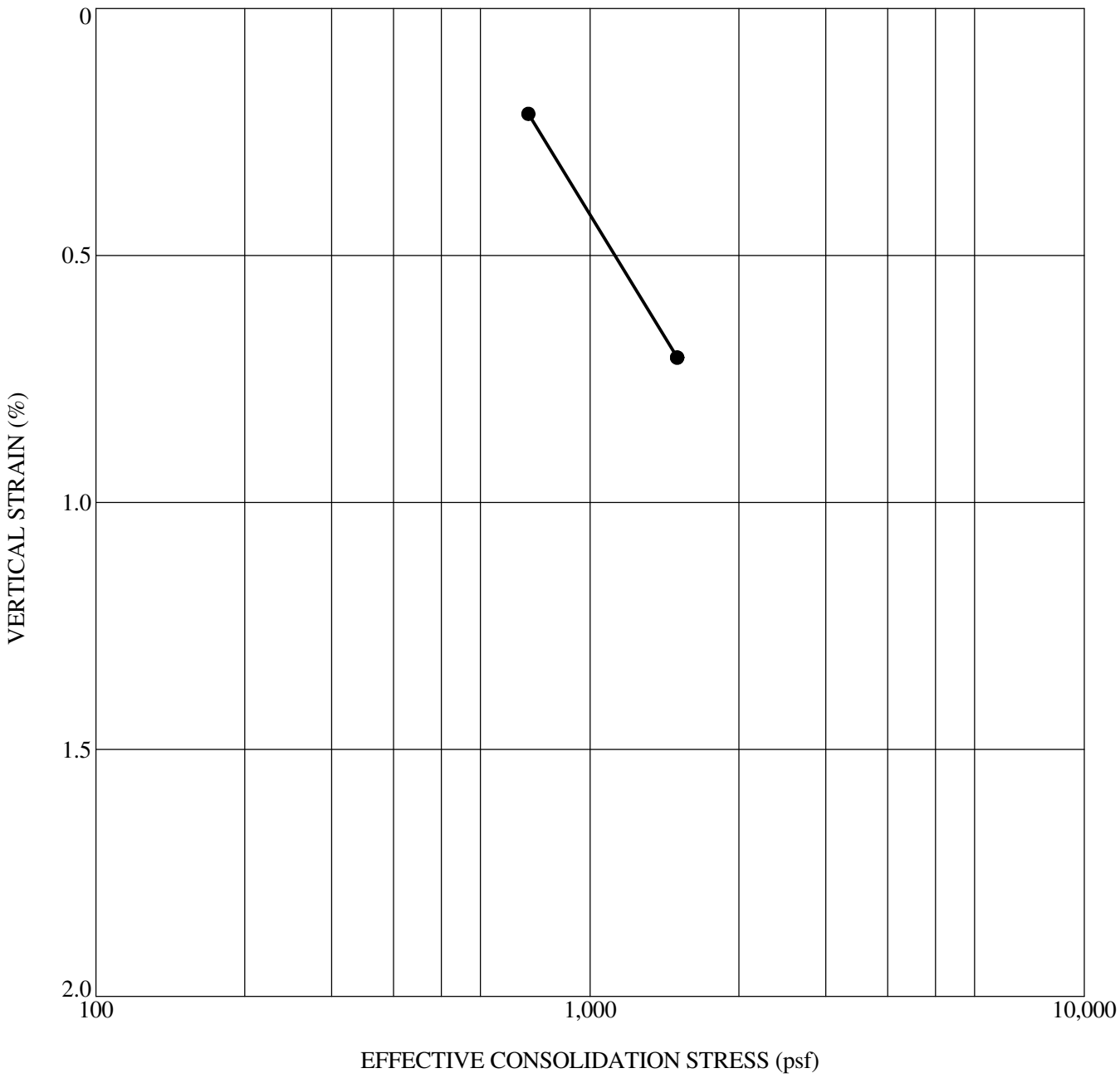
C_SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**ME-TP-08**	**12.0**	**Lean CLAY**	**93**	**23**	**1500**		**0.01**

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1-D SWELL/COLLAPSE TEST

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Project Number: 589-100

Plate

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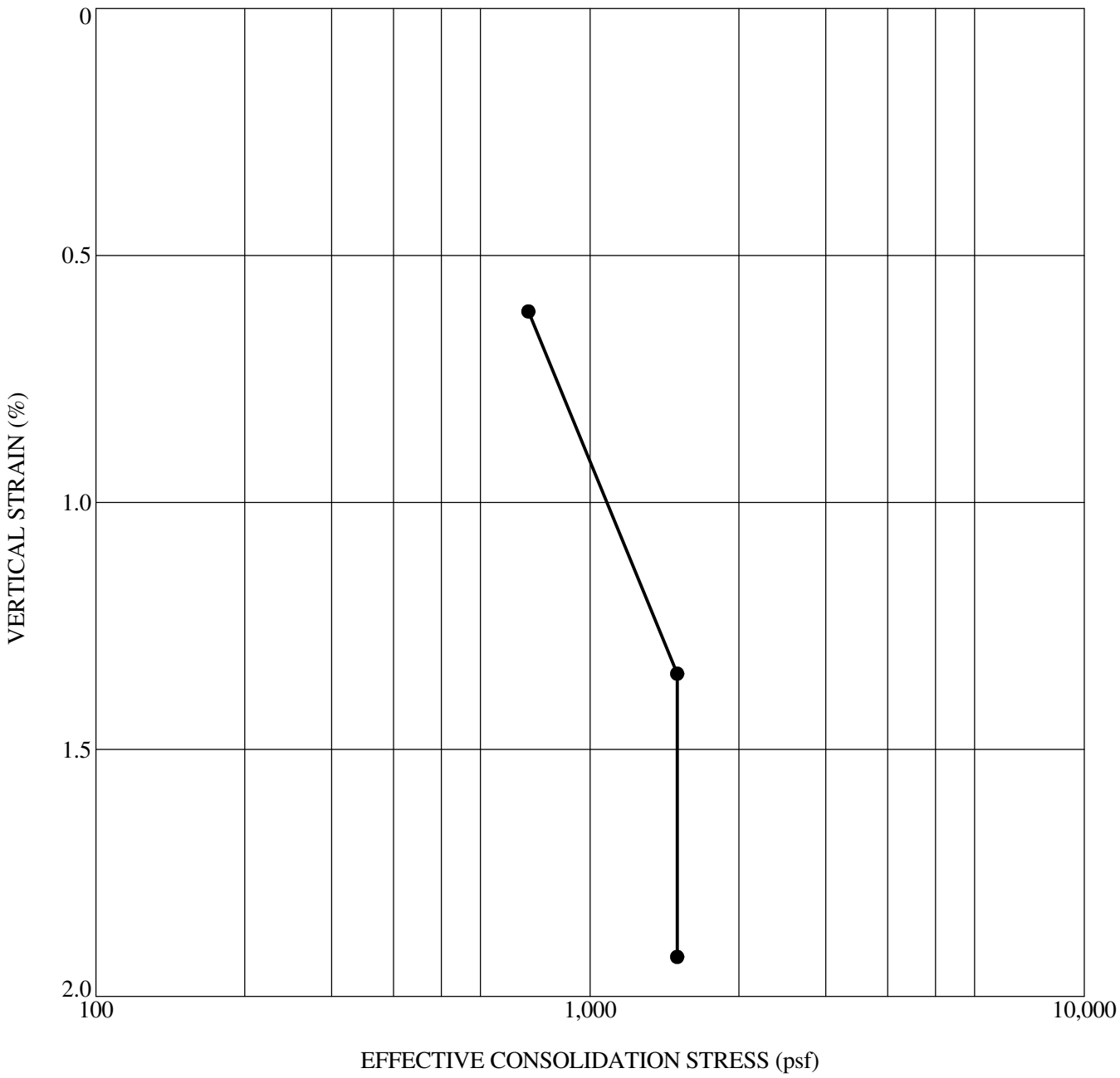
C_SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**ME-TP-10**	**5.0**	**Sandy SILT**	**82**	**17**	**1500**		**0.43**

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1-D SWELL/COLLAPSE TEST

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Project Number: 589-100

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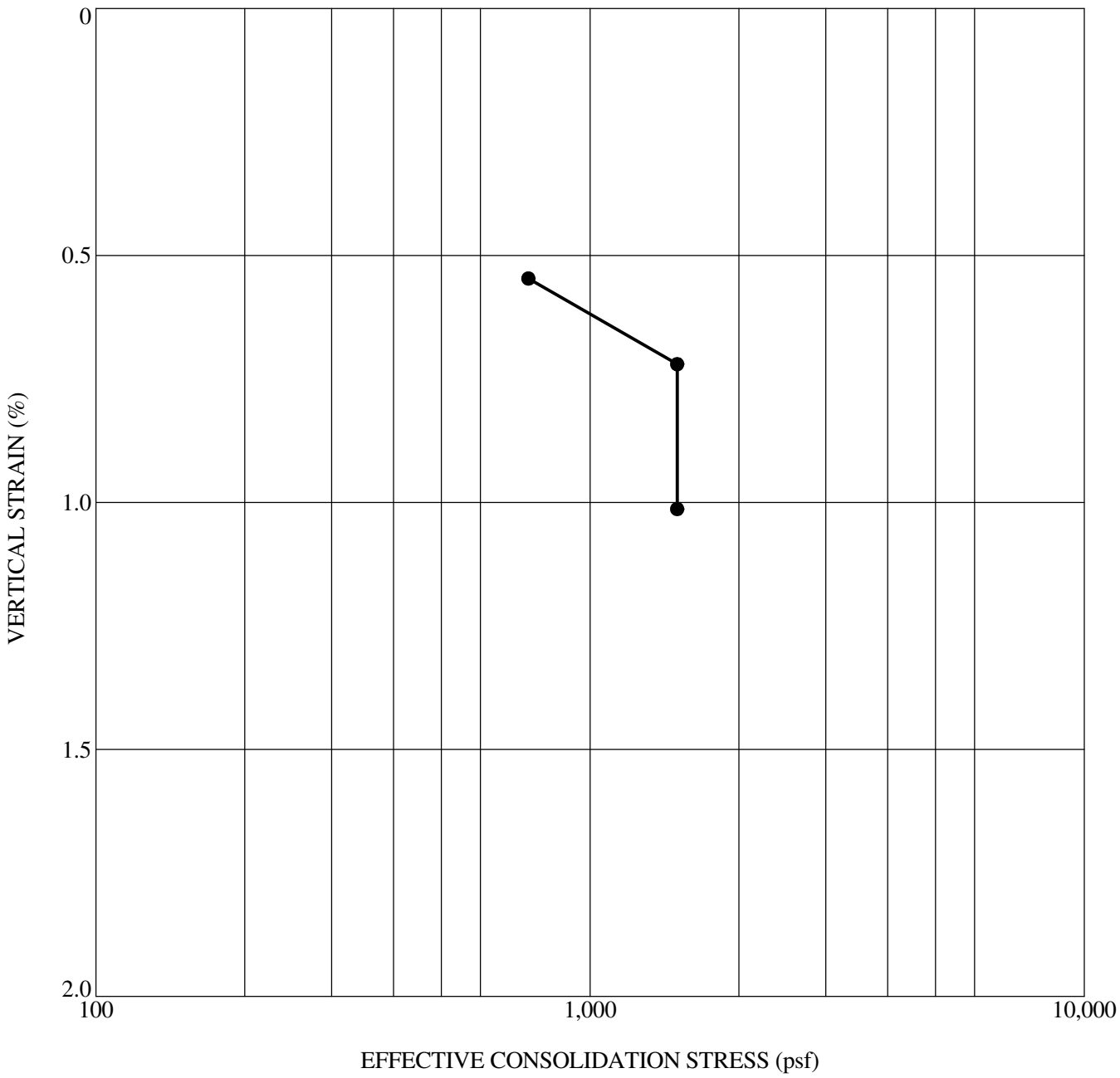
C_SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**ME-TP-12**	**4.0**	**Lean CLAY**	**97**	**25**	**1500**		**0.22**

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1-D SWELL/COLLAPSE TEST

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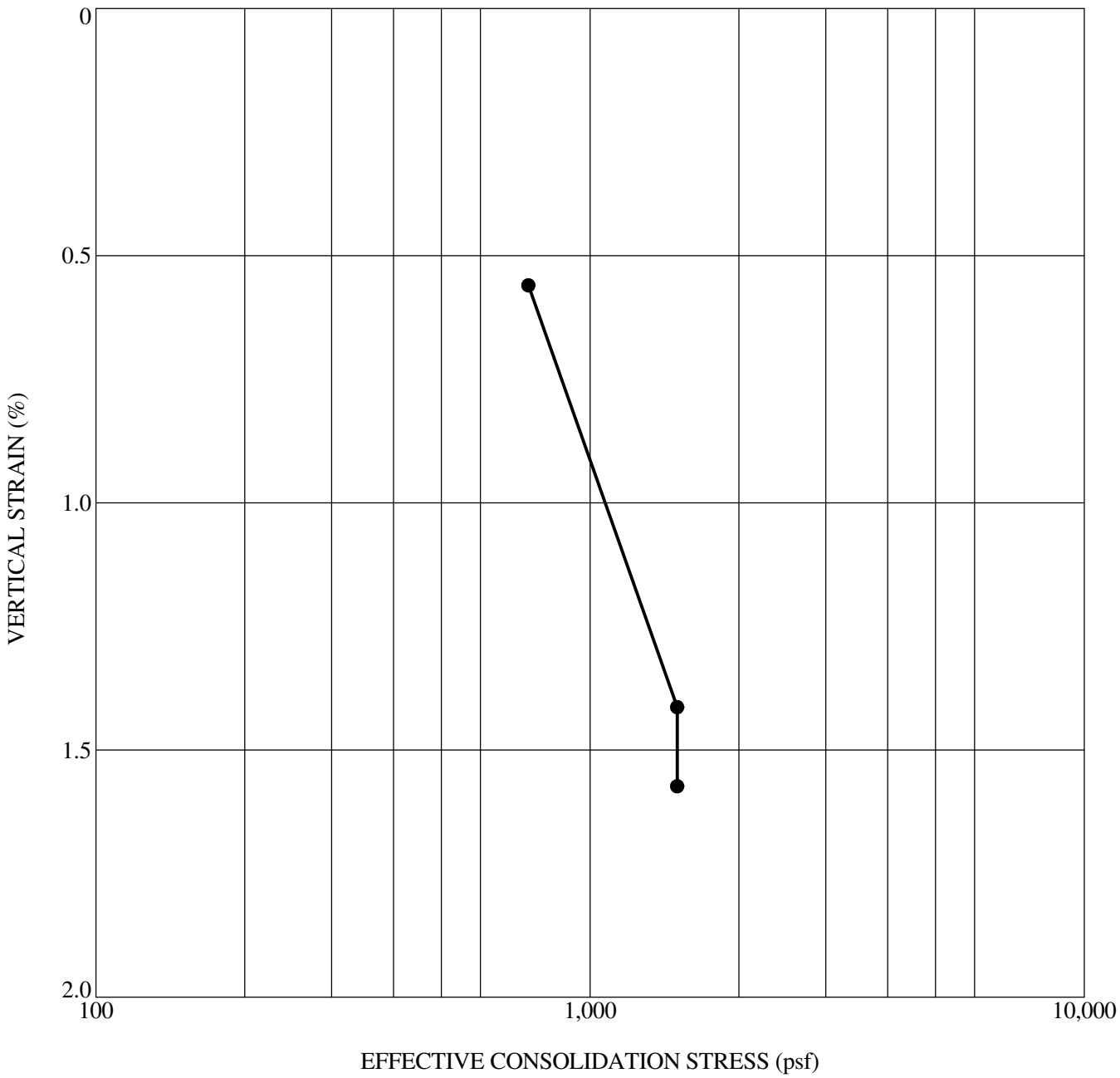
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 16

C_SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**ME-TP-13**	**11.0**	**Lean CLAY**	**100**	**19**	**1500**		**0.12**

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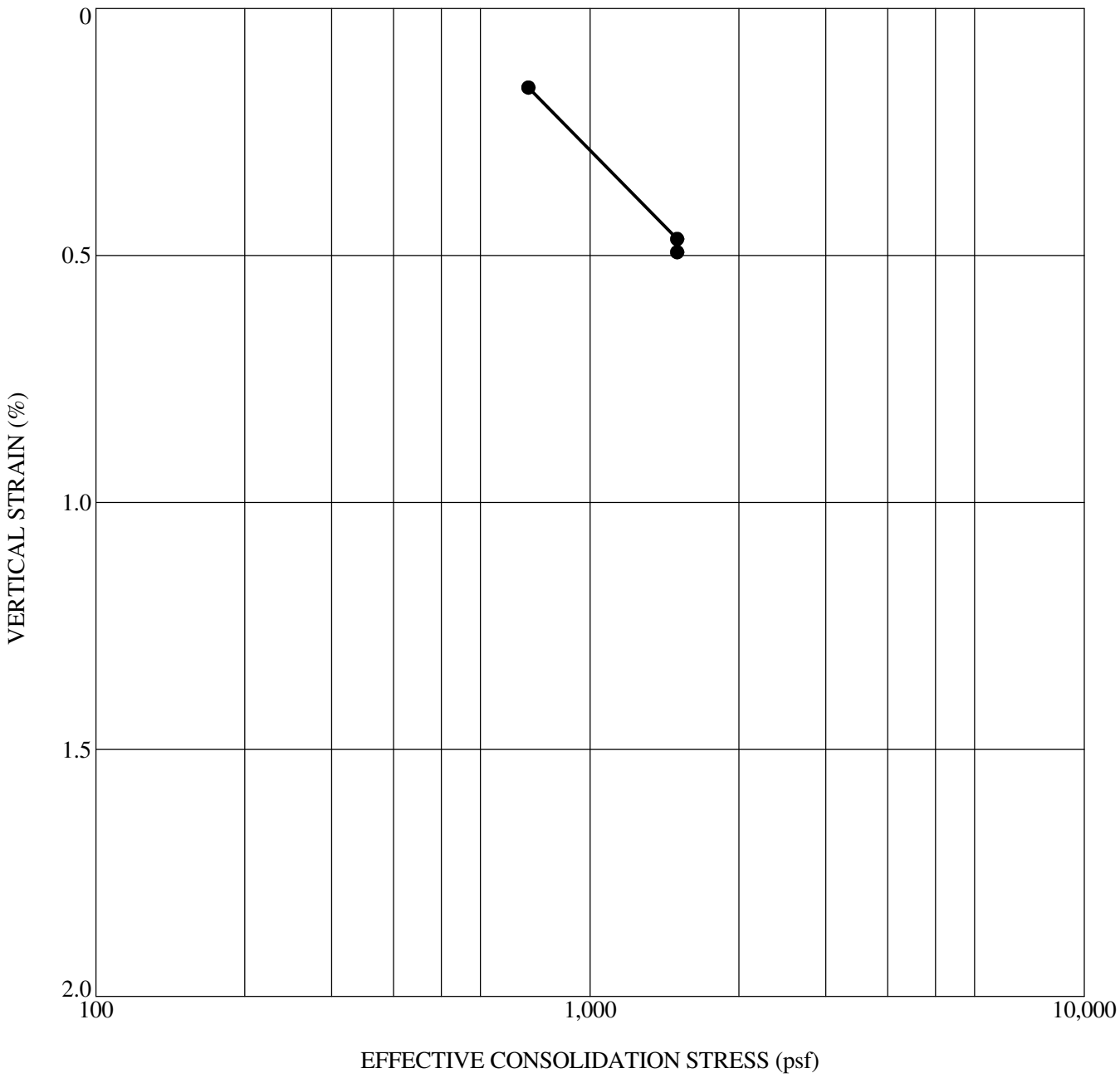
1-D SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 17

C_SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**ME-TP-15**	**3.0**	**Lean CLAY**	**97**	**16**	**1500**		**0.03**

GeoStrata

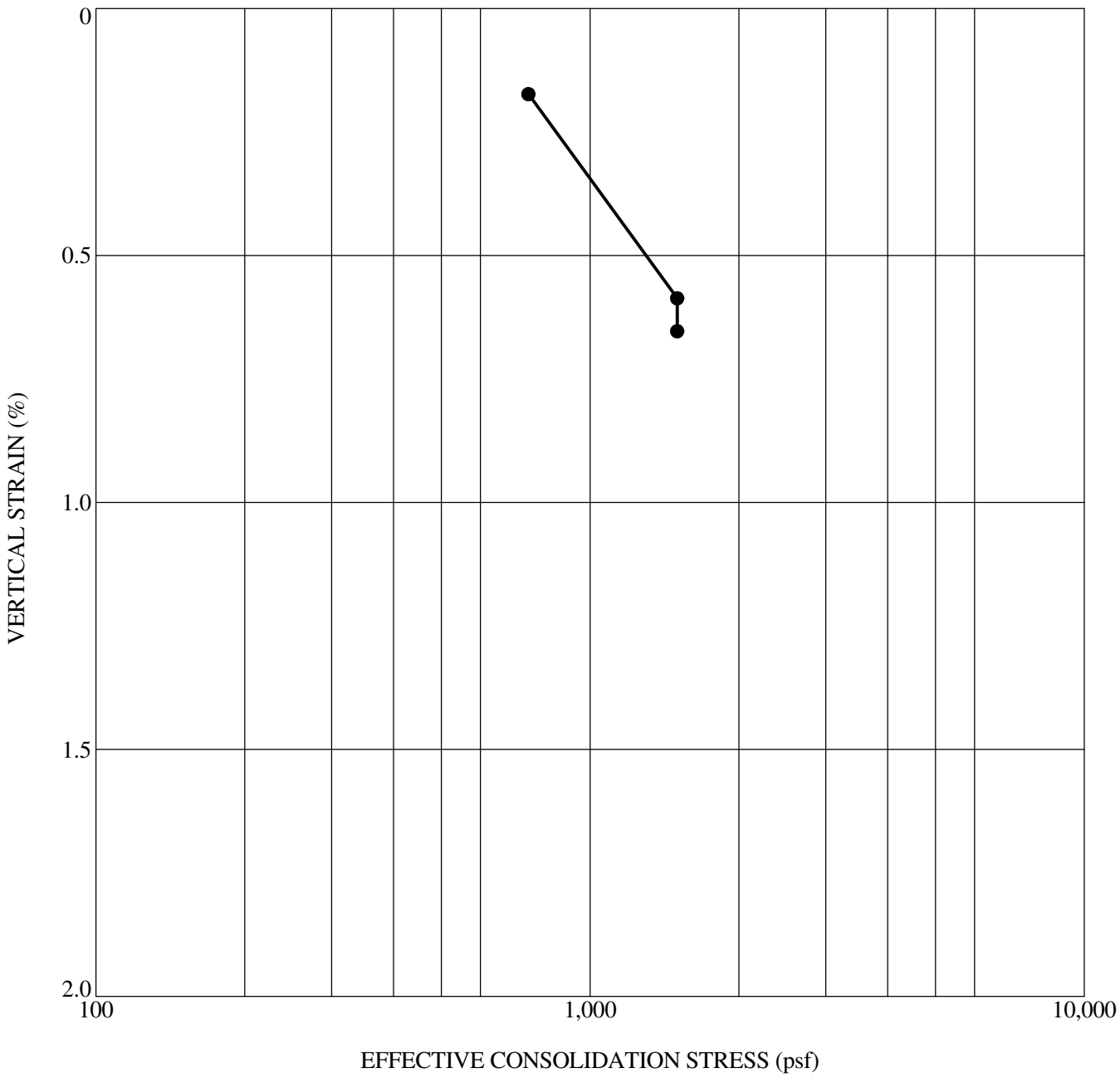
1-D SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 18

C_SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**ME-TP-18**	**3.0**	**Lean CLAY**	**89**	**20**	**1500**		**0.07**

GeoStrata

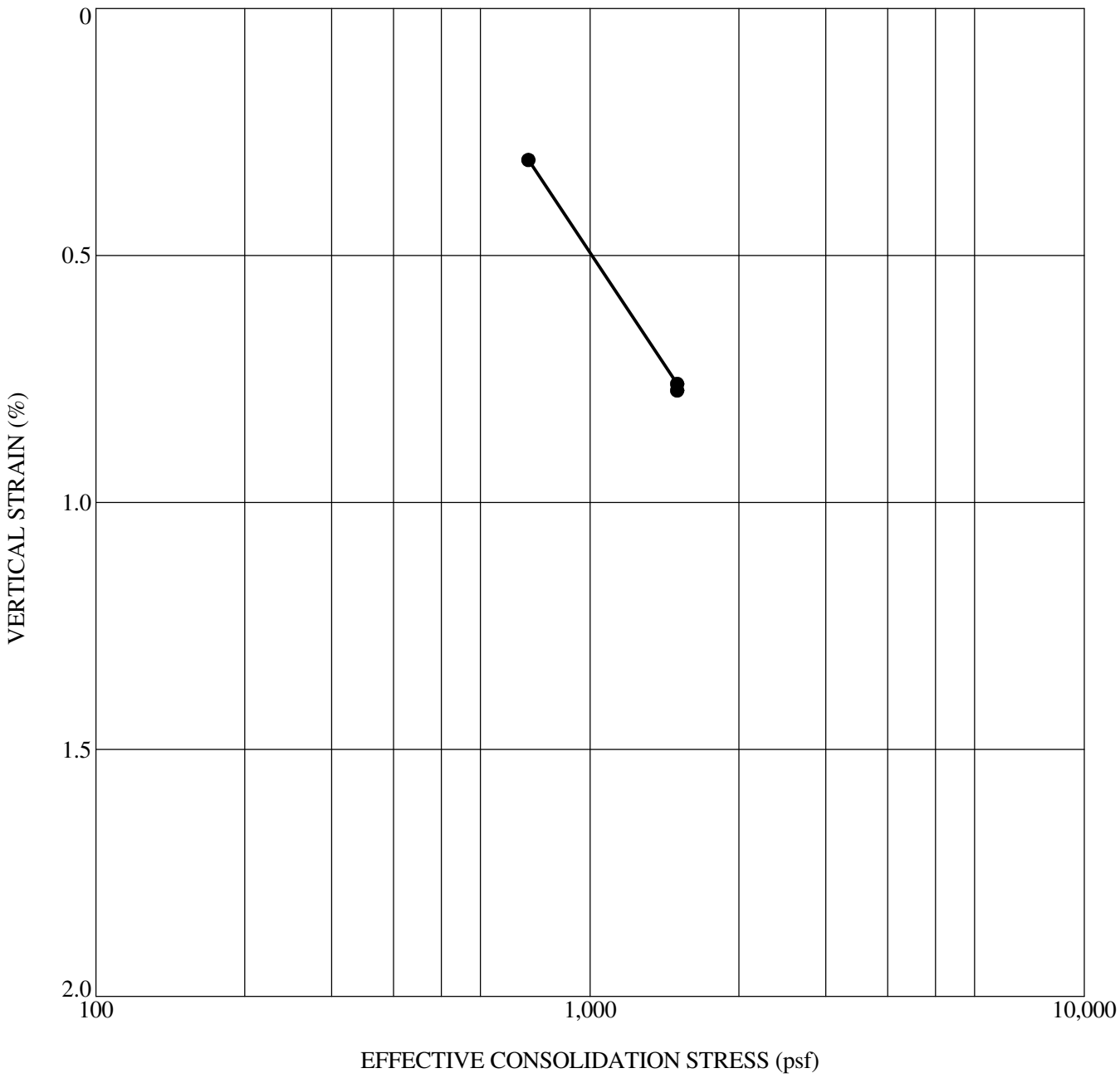
1-D SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 19

C_SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**ME-TP-22**	**3.5**	**Lean CLAY**	**93**	**22**	**1500**		**0.01**

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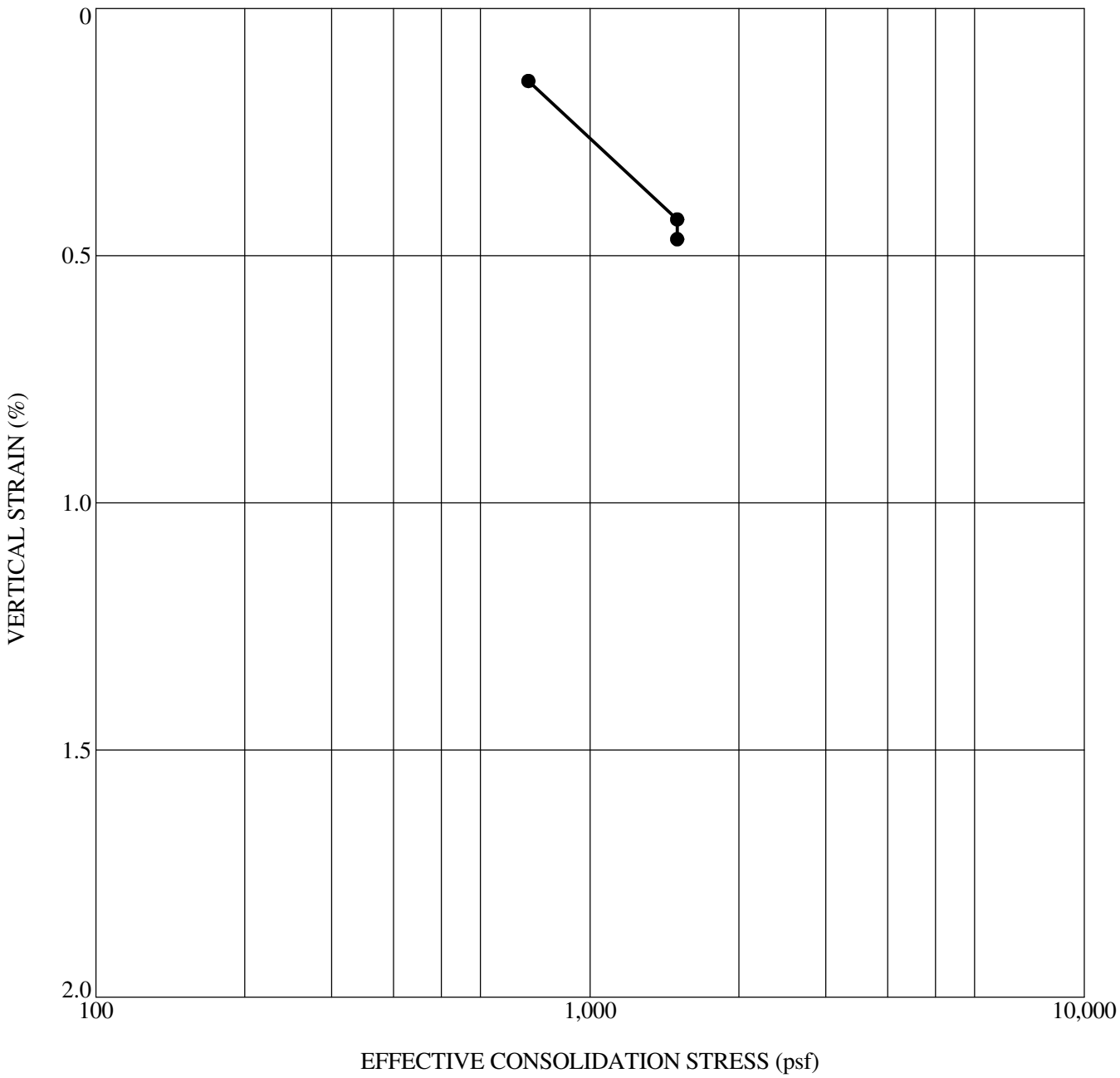
1-D SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 20

C_SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



	Sample Location	Depth (ft)	Classification	γ_d (pcf)	MC (%)	Inundation Load (psf)	Swell (%)	Collapse (%)
●	**ME-TP-30**	**5.0**	**Silty SAND**	**83**	**24**	**1500**		**0.04**

GeoStrata

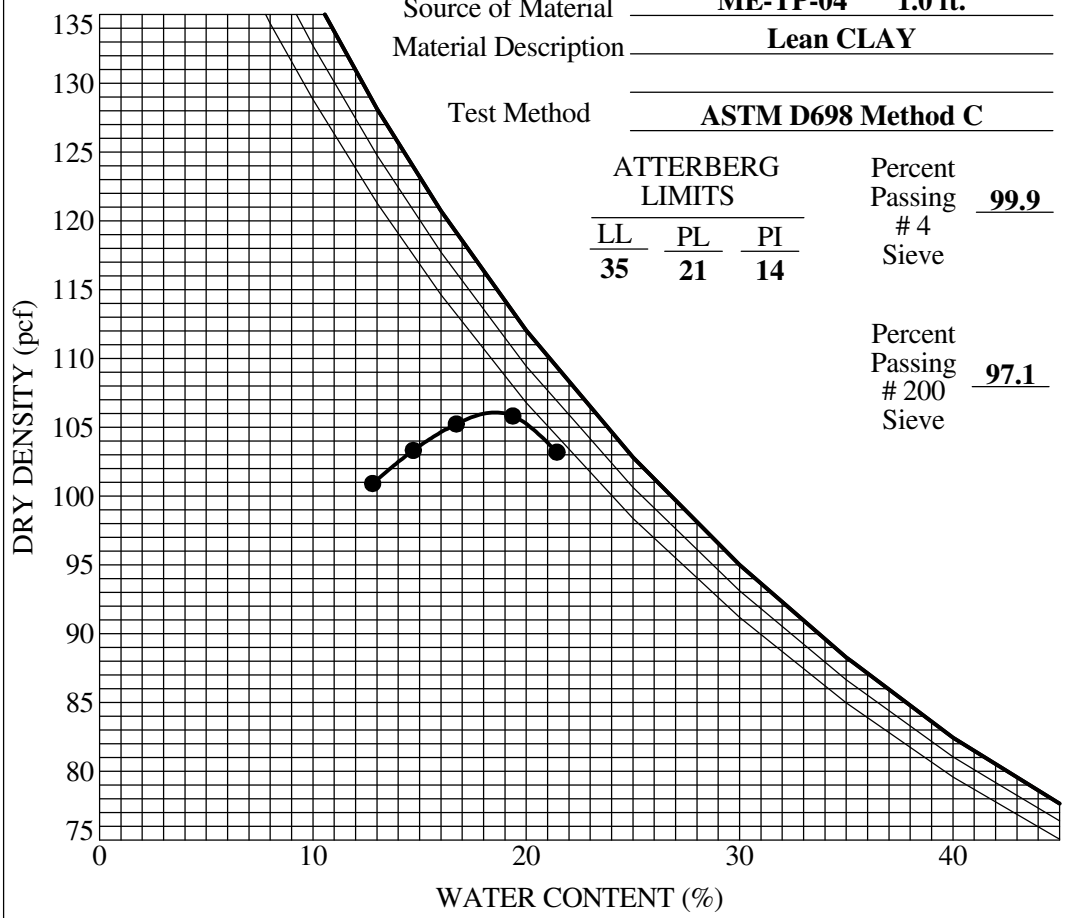
1-D SWELL/COLLAPSE TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

C - 21

C_SWELL/COLLAPSE 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21



Source of Material: **ME-TP-04 1.0 ft.**

Material Description: **Lean CLAY**

Test Method: **ASTM D698 Method C**

ATTERBERG LIMITS

LL	PL	PI
35	**21**	**14**

Percent Passing # 4 Sieve: **99.9**

Percent Passing # 200 Sieve: **97.1**

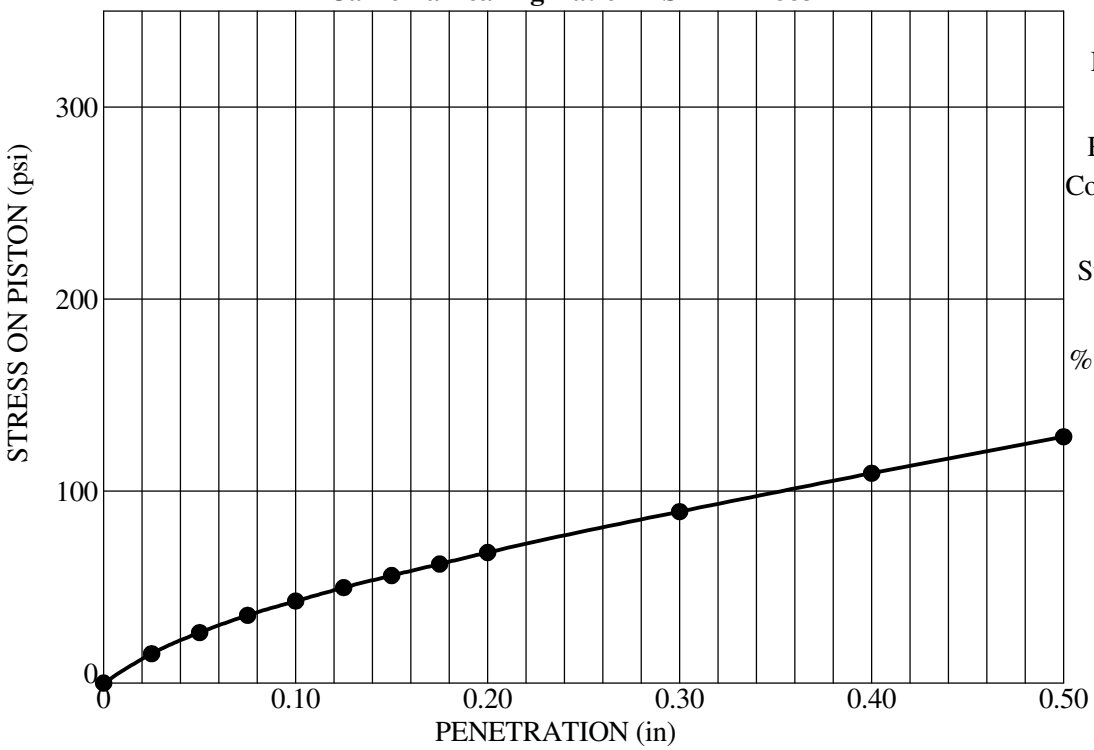
TEST RESULTS

Maximum Dry Density	**107.0**	**(pcf)**
Optimum Water Content	**18.5**	**(%)**
Percent Rock		**(%)**
Corrected Maximum Dry Density		**(pcf)**
Corrected Optimum Water Content		**(%)**

Curves of 100% Saturation for Specific Gravity Equal to:

2.60, 2.70, 2.80

Califonia Bearing Ratio - ASTM D 1883



Dry Density	**107.0**	**(pcf)**
Relative Compaction	**100**	**(%)**
Surcharge	**51**	**(psf)**
% Standard CBR	**4.30**	
Swell	**0.24**	**(%)**

GeoStrata

COMPACTION AND CBR TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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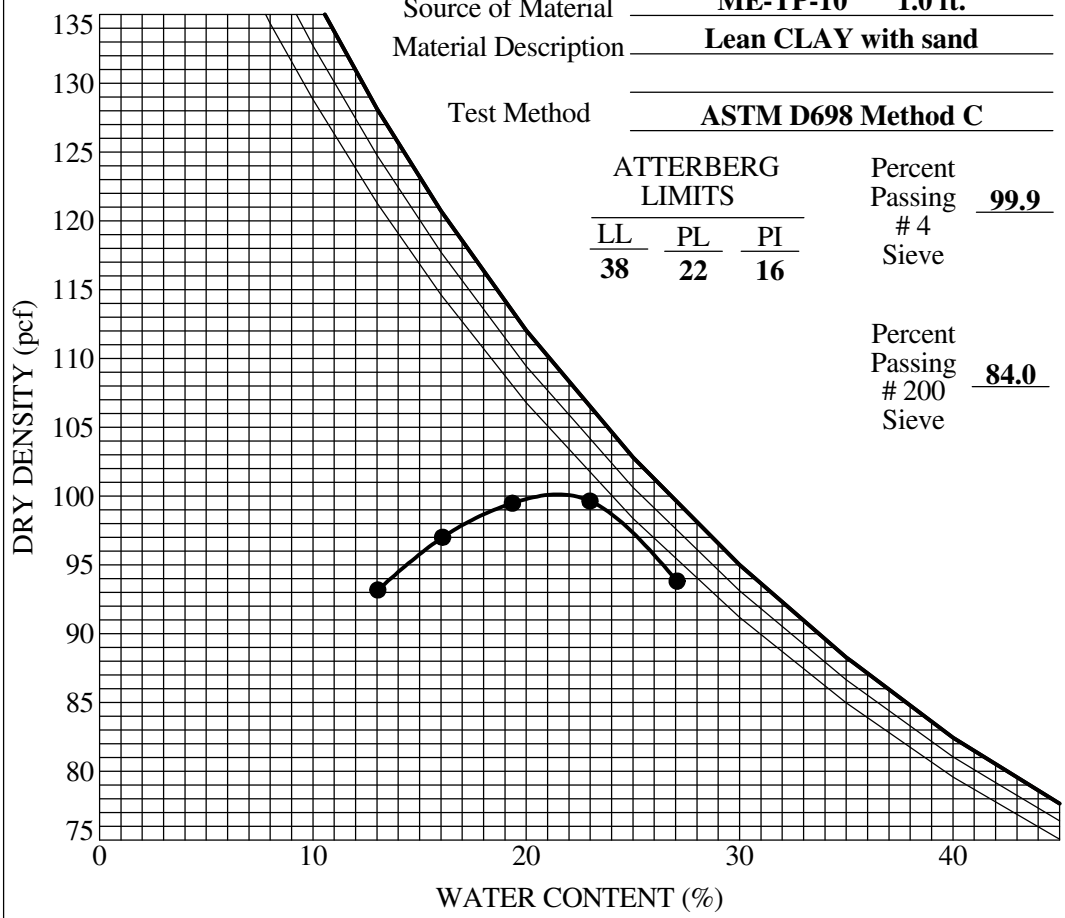


Source of Material: **ME-TP-10 1.0 ft.**

Material Description: **Lean CLAY with sand**

Test Method: **ASTM D698 Method C**

ATTERBERG LIMITS

LL	PL	PI
38	22	16

Percent Passing # 4 Sieve: **99.9**

Percent Passing # 200 Sieve: **84.0**

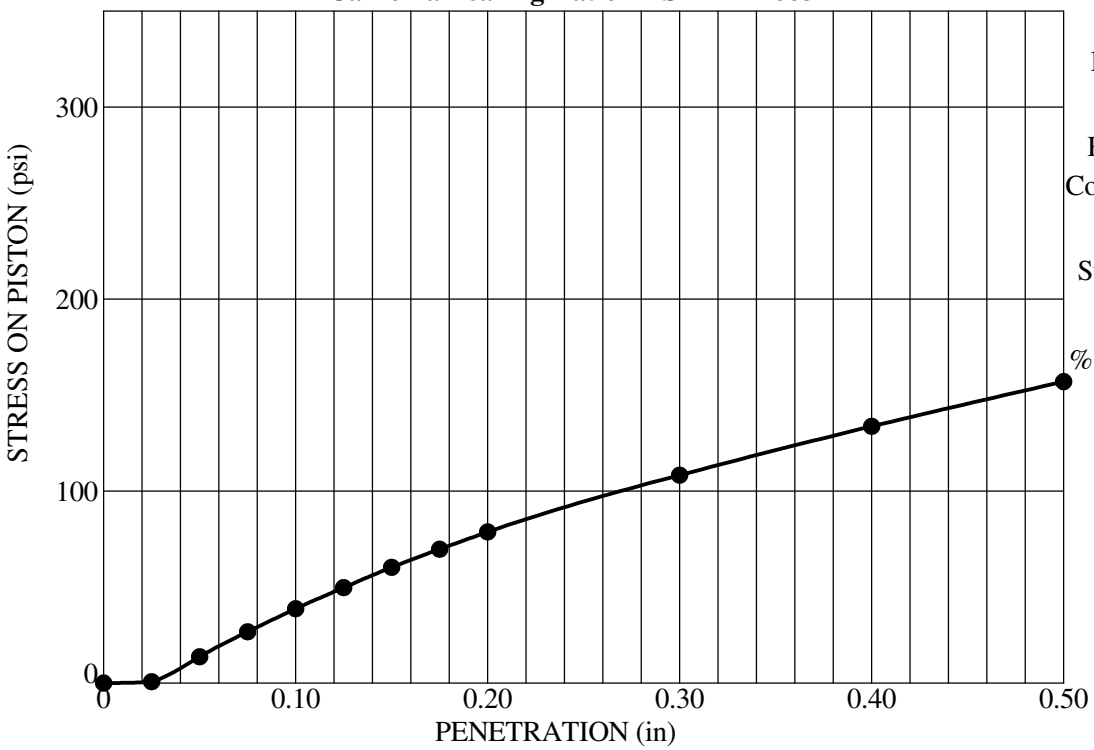
TEST RESULTS

Maximum Dry Density	**100.0**	**(pcf)**
Optimum Water Content	**21.8**	**(%)**
Percent Rock		**(%)**
Corrected Maximum Dry Density		**(pcf)**
Corrected Optimum Water Content		**(%)**

Curves of 100% Saturation for Specific Gravity Equal to:

2.60, 2.70, 2.80

Califonia Bearing Ratio - ASTM D 1883



Dry Density	**100.5**	**(pcf)**
Relative Compaction	**100**	**(%)**
Surcharge	**50**	**(psf)**
% Standard CBR	**3.90**	
Swell	**0.46**	**(%)**

GeoStrata

COMPACTION AND CBR TEST

D.R. Horton
Micron Property
Lehi, Utah
Project Number: 589-100

Plate

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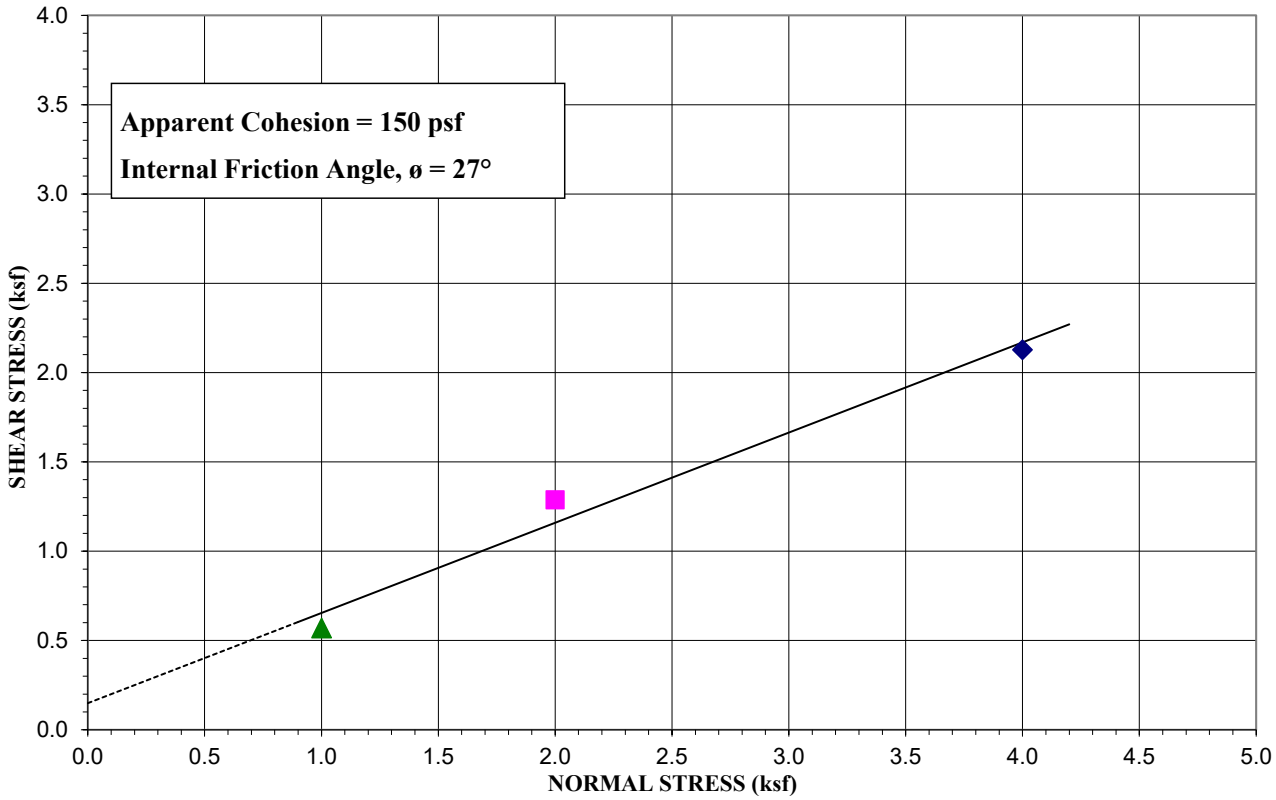
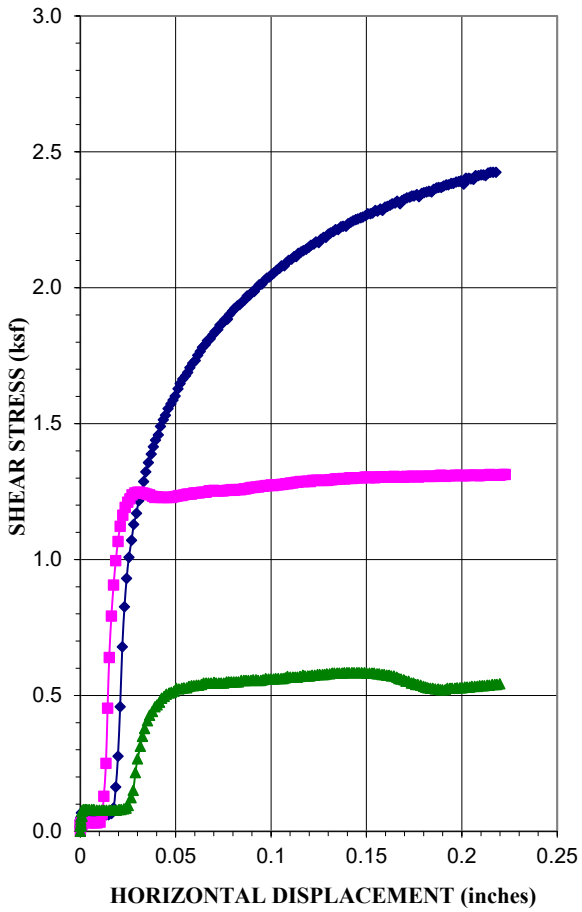
C_COMPACTION SPLIT 2020 GINT UPDATE TEMPLATE.GPJ GEOSTRATA.GDT 1/26/21

DIRECT SHEAR TEST





Sample Location:	ME-TP-13 at 5 feet
Type of Test:	Consolidated Drained/Saturated

Test No. (Symbol)	**1 (◆)**	**2 (■)**	**3 (▲)**
Sample Type	Remolded		
Initial Height, in.	1.002	0.966	0.975
Diameter, in.	2.5	2.5	2.5
Dry Density Before, pcf	99.8	105.1	104.1
Dry Density After, pcf	101.6	107.0	105.9
Moisture % Before	13.2	14.6	15.3
Moisture % After	23.1	22.9	24.4
Saturation, % Before	53.2	67.5	69.0
Saturation, % After	97.5	111.0	115.1
Normal Load, ksf	4.0	2.0	1.0
Shear Stress, ksf	2.13	1.29	0.57
Strain Rate	0.002592 IN/MIN		

Sample Properties	
Cohesion, psf	150
Friction Angle, ϕ	27
Liquid Limit, %	-
Plasticity Index, %	-
Percent Gravel	1.2
Percent Sand	10.5
Percent Passing No. 200 sieve	88.2
Classification	CL

PROJECT: Micron Property

PROJECT NO.: **589-100**

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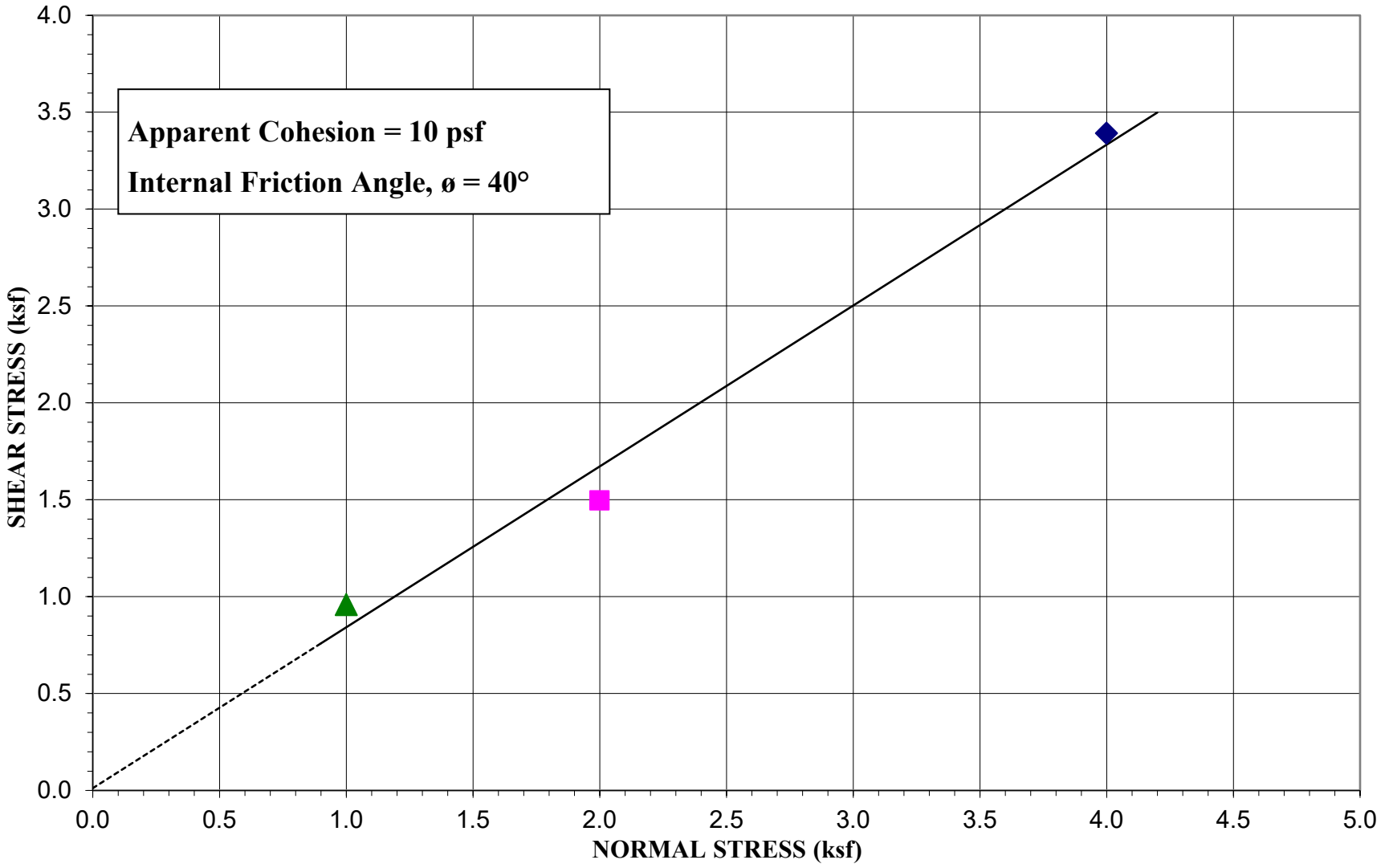
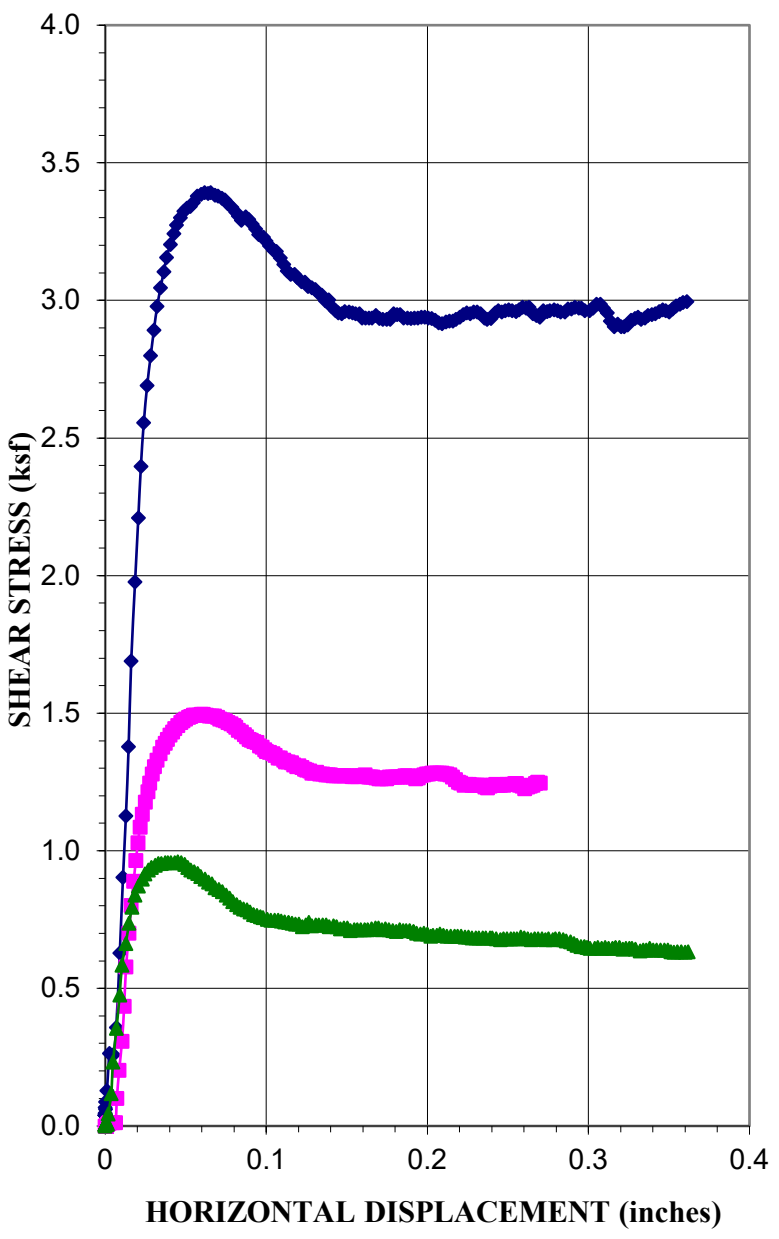
Plate TP-13

DIRECT SHEAR TEST





Source:	ME-TP-29 at 3 feet
Type of Test:	Consolidated Drained/Saturated

Test No. (Symbol)	**1 (◆)**	**2 (■)**	**3 (▲)**
Sample Type	Remolded		
Initial Height, in.	1.026	1.033	1.02
Diameter, in.	2.5	2.5	2.5
Dry Density Before, pcf	104.4	103.9	105.4
Dry Density After, pcf	106.5	105.7	107.3
Moisture % Before	5.5	6.9	7.4
Moisture % After	19.7	21.2	19.2
Saturation, % Before	25.1	30.9	34.4
Saturation, % After	94.4	99.6	93.9
Normal Load, ksf	4.0	2.0	1.0
Shear Stress, ksf	3.39	1.50	0.96
Strain Rate	0.003333 IN/MIN		

Sample Properties	
Cohesion, psf	10
Friction Angle, ϕ	40
Liquid Limit, %	NP
Plasticity Index, %	NP
Percent Gravel	6.2
Percent Sand	82
Percent Passing No. 200 sieve	11.9
Classification	SP-SM

PROJECT: Micron Property

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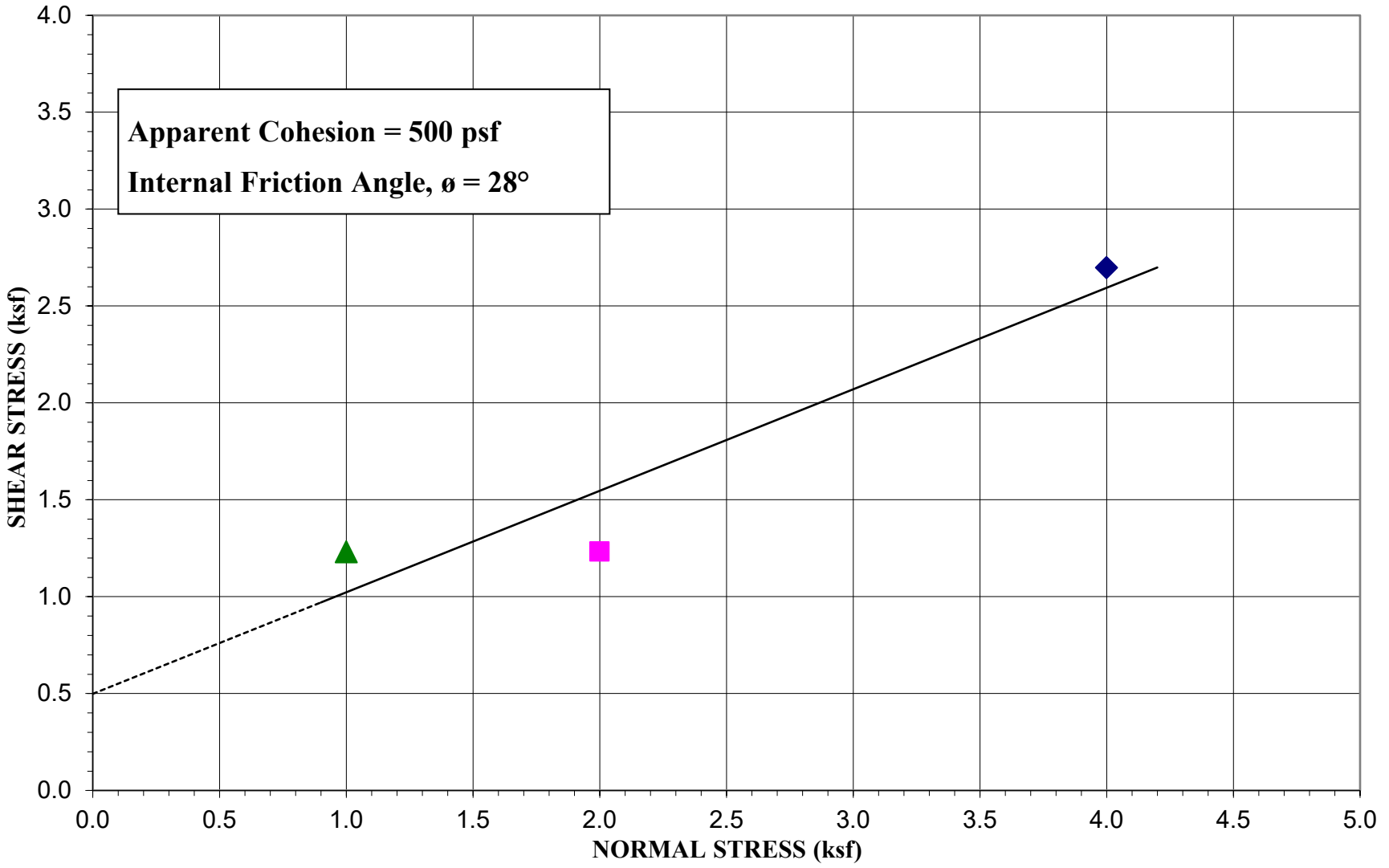
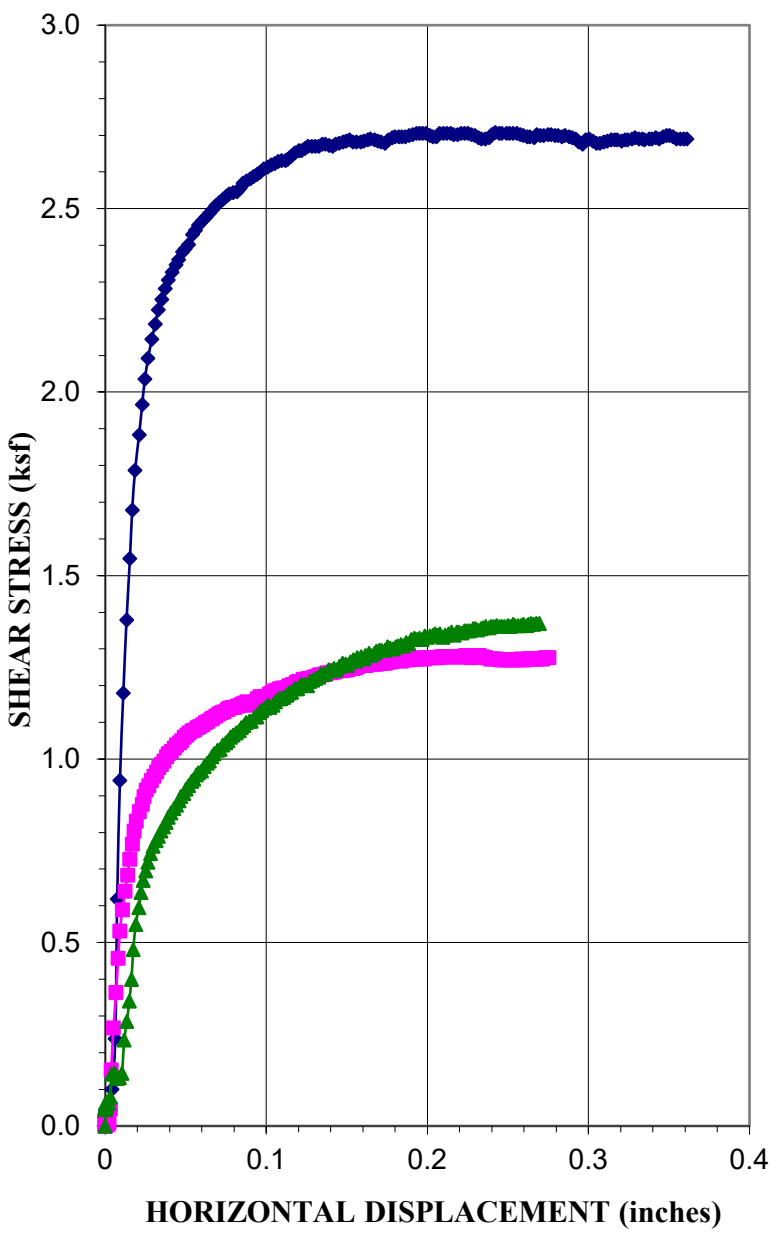
Plate C-25

DIRECT SHEAR TEST





Source:	ME-TP-33 at 5 feet
Type of Test:	Consolidated Drained/Saturated

Test No. (Symbol)	**1 (◆)**	**2 (■)**	**3 (▲)**
Sample Type	Remolded		
Initial Height, in.	0.901	0.947	0.948
Diameter, in.	2.5	2.5	2.5
Dry Density Before, pcf	96.1	91.9	91.6
Dry Density After, pcf	98.6	94.3	94.1
Moisture % Before	12.6	10.9	9.5
Moisture % After	24.3	28.9	28.5
Saturation, % Before	46.2	36.2	31.4
Saturation, % After	95.2	101.8	99.8
Normal Load, ksf	4.0	2.0	1.0
Shear Stress, ksf	2.70	1.23	1.23
Strain Rate	0.003333 IN/MIN		

Sample Properties	
Cohesion, psf	500
Friction Angle, ϕ	28
Liquid Limit, %	0
Plasticity Index, %	0
Percent Gravel	52.2
Percent Sand	30.5
Percent Passing No. 200 sieve	17.4
Classification	GM

PROJECT: Micron Property

PROJECT NO.: **589-100**

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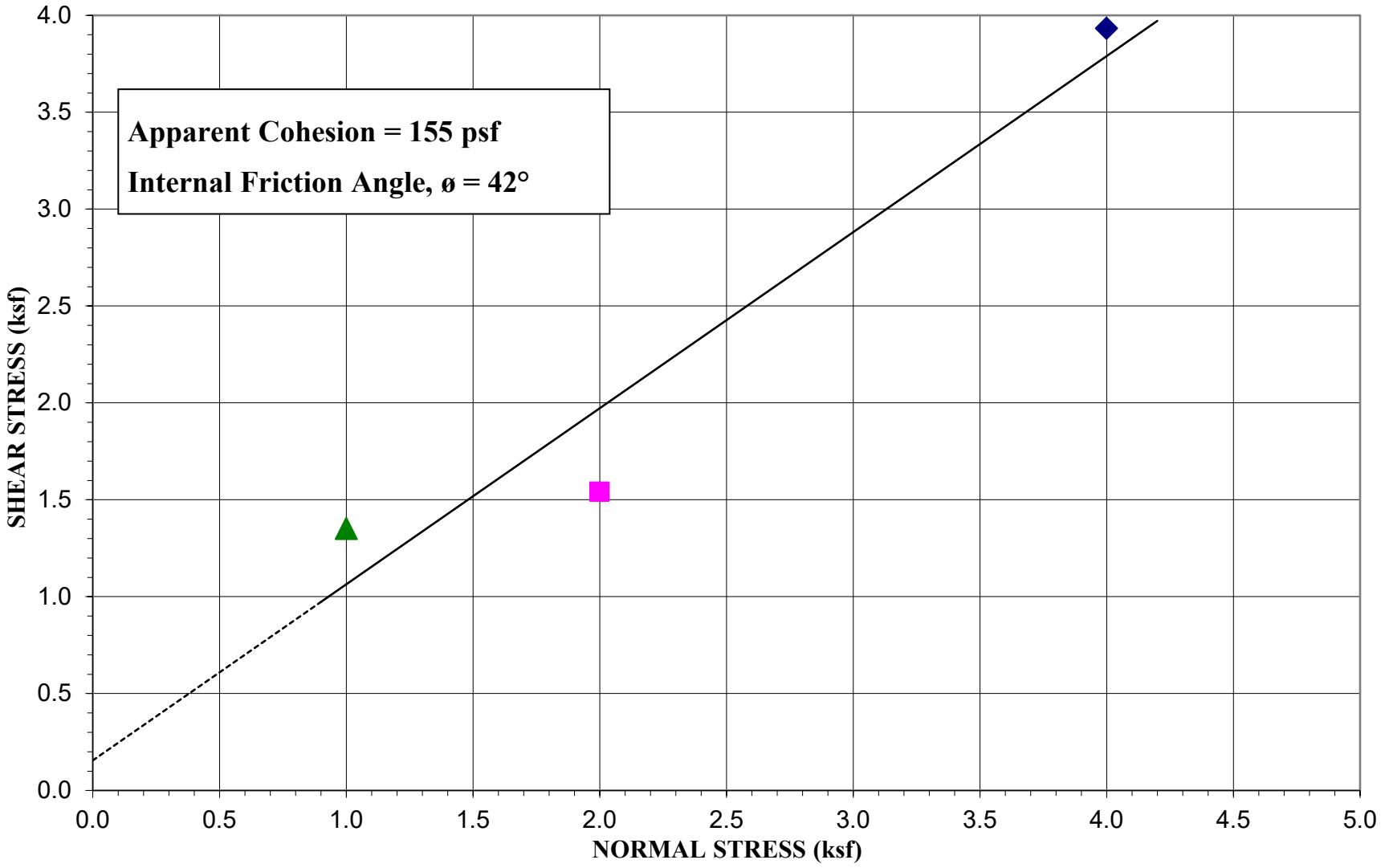
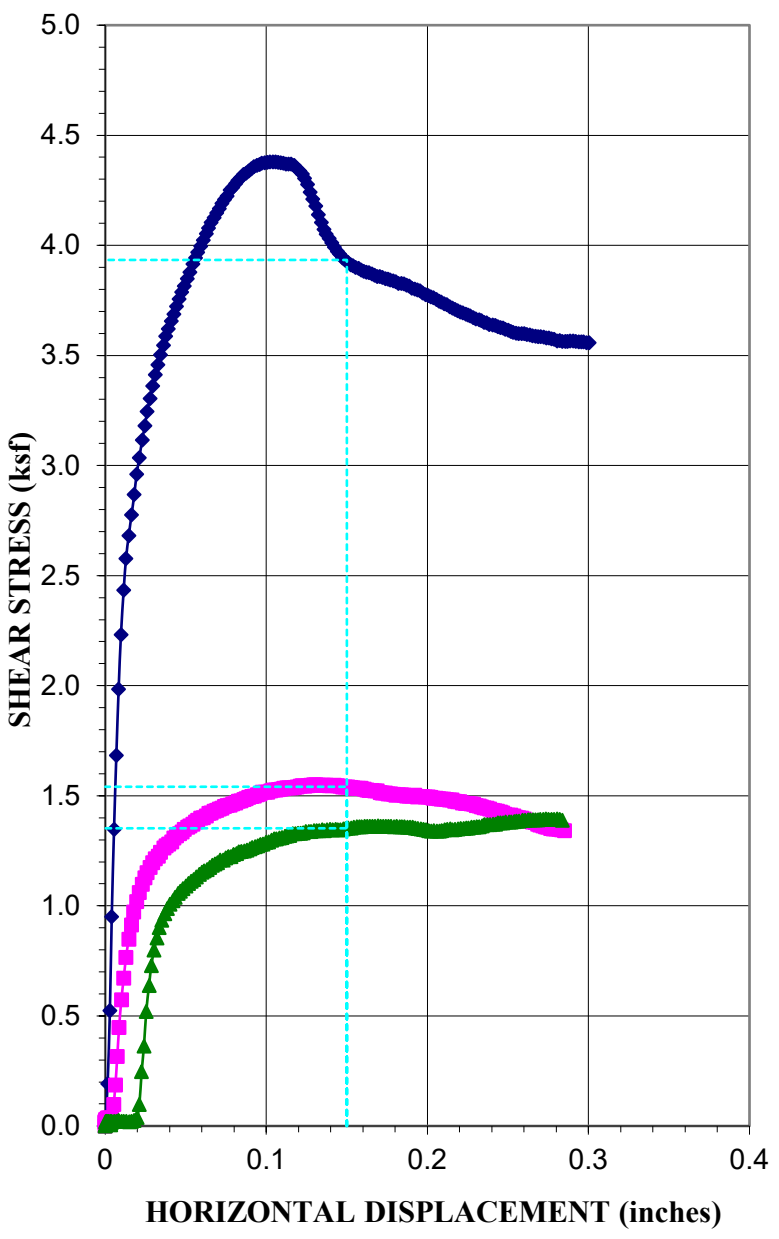
Plate C-26

DIRECT SHEAR TEST





Sample Location:	ME-TP-13 at 5 feet
Type of Test:	Consolidated Drained/Saturated

Test No. (Symbol)	**1 (◆)**	**2 (■)**	**3 (▲)**
Sample Type	Remolded		
Initial Height, in.	1.002	0.966	0.975
Diameter, in.	2.5	2.5	2.5
Dry Density Before, pcf	118.4	120.8	120.8
Dry Density After, pcf	119.9	122.3	122.3
Moisture % Before	15.7	17.0	14.2
Moisture % After	29.3	33.0	32.4
Saturation, % Before	105.3	122.2	101.8
Saturation, % After	205.0	249.0	244.2
Normal Load, ksf	4.0	2.0	1.0
Shear Stress, ksf	3.93	1.54	1.35
Strain Rate	0.002592 IN/MIN		

Sample Properties	
Cohesion, psf	155
Friction Angle, ϕ	42
Liquid Limit, %	-
Plasticity Index, %	-
Percent Gravel	1.2
Percent Sand	10.5
Percent Passing No. 200 sieve	88.2
Classification	CL

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PROJECT NO.: **589-100**

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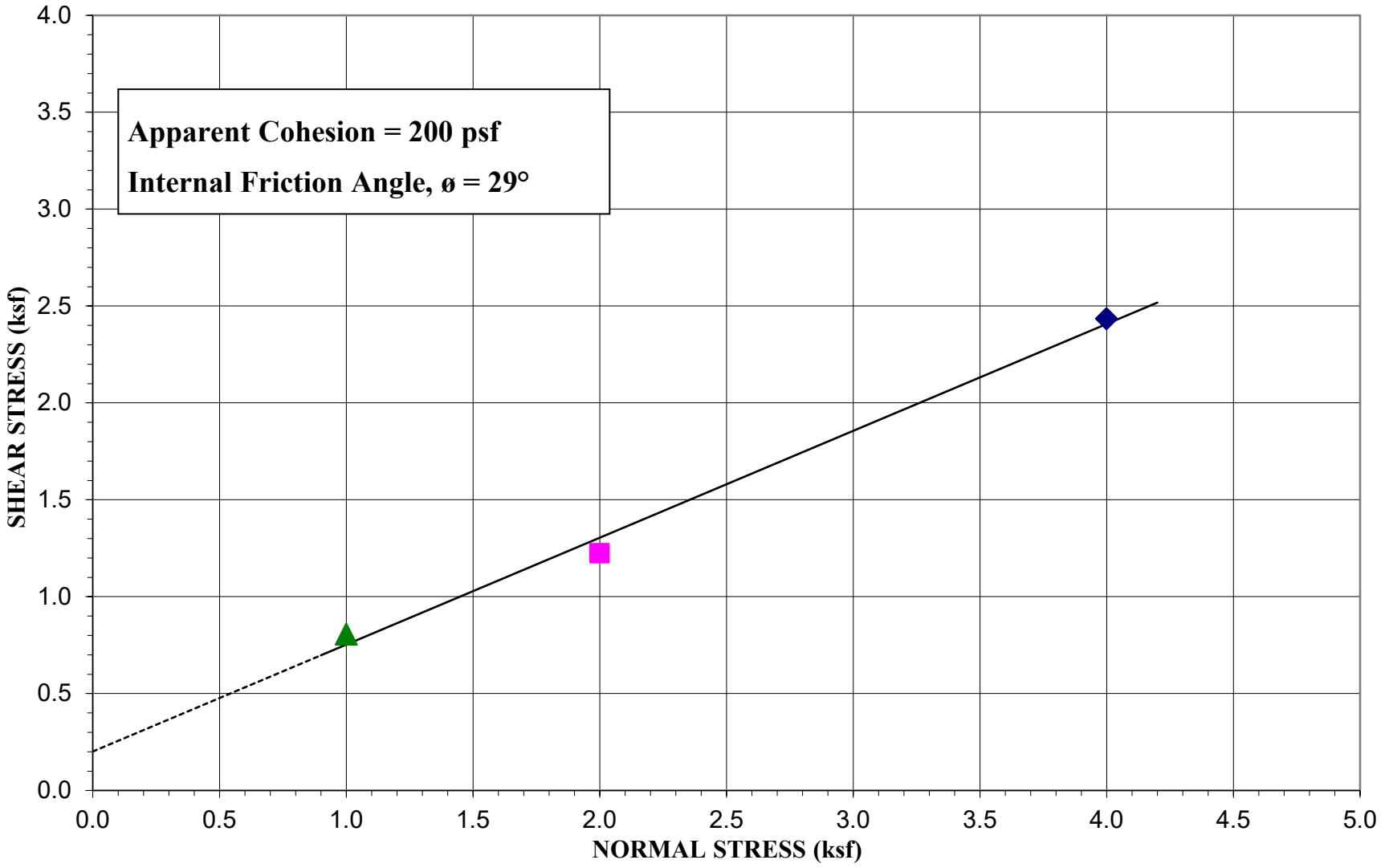
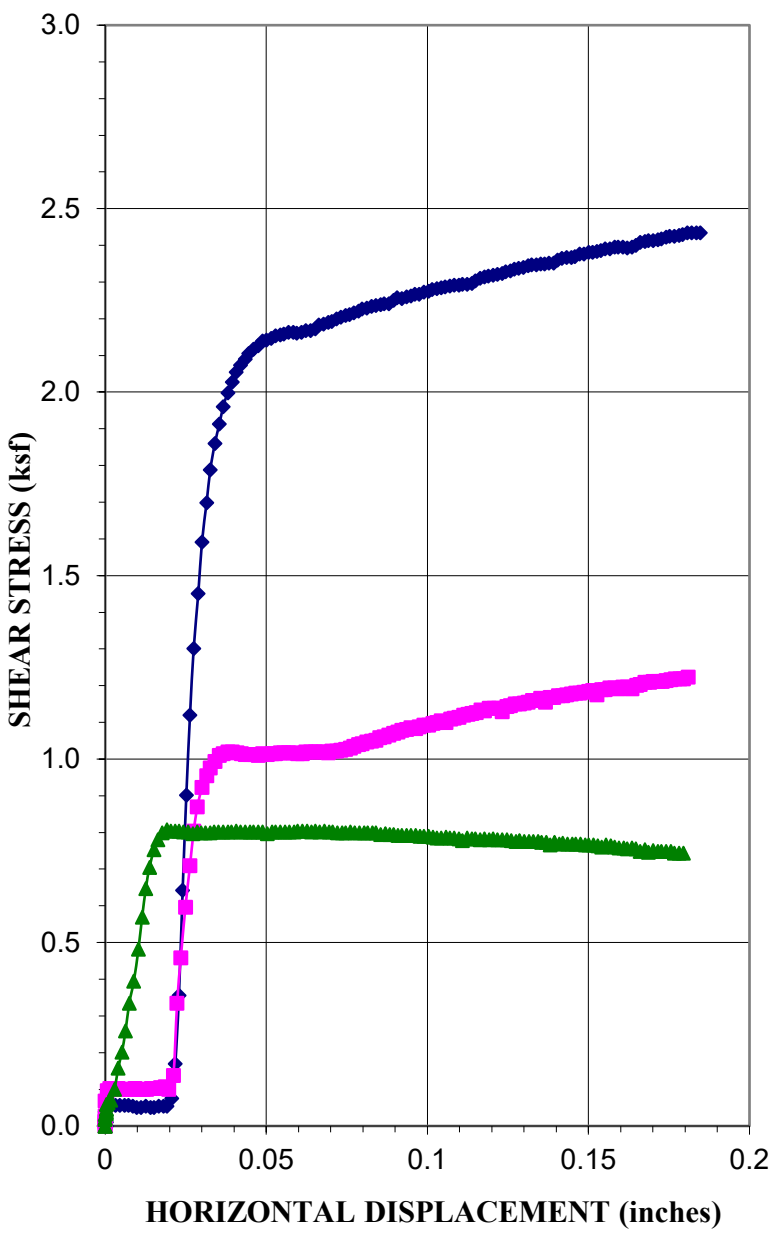
Plate C-27

DIRECT SHEAR TEST





Sample Location:	ME-TP-13 at 5 feet
Type of Test:	Consolidated Drained/Saturated

Test No. (Symbol)	**1 (◆)**	**2 (■)**	**3 (▲)**
Sample Type	Remolded		
Initial Height, in.	1.002	0.966	0.975
Diameter, in.	2.5	2.5	2.5
Dry Density Before, pcf	84.3	87.6	86.9
Dry Density After, pcf	86.1	89.4	88.6
Moisture % Before	19.2	20.0	20.0
Moisture % After	29.4	30.9	33.7
Saturation, % Before	52.9	59.7	58.5
Saturation, % After	84.6	96.4	102.9
Normal Load, ksf	4.0	2.0	1.0
Shear Stress, ksf	2.43	1.22	0.81
Strain Rate	0.002592 IN/MIN		

Sample Properties	
Cohesion, psf	200
Friction Angle, ϕ	29
Liquid Limit, %	-
Plasticity Index, %	-
Percent Gravel	39.8
Percent Sand	39.8
Percent Passing No. 200 sieve	20.4
Classification	GM

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PROJECT NO.: **589-100**

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Plate C-28

APPENDIX D

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals' plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for information purposes only.* To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer's services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration. Confront the risk of moisture infiltration* by including building-envelope or mold specialists on the design team. *Geotechnical engineers are not building-envelope or mold specialists.*

GEOPROFESSIONAL BUSINESS ASSOCIATION

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Section 6 – Fiscal Analysis

- General Notes and Purpose of Fiscal Analysis
- Power Fiscal Analysis
- Sewer Fiscal Analysis
- Storm Drain Fiscal Analysis
- Water – Culinary Fiscal Analysis
- Water – P.I. Fiscal Analysis
- Roads and Street Improvements Fiscal Analysis
- Public Park Improvements Fiscal Analysis

General Notes and Purpose of Fiscal Analysis

The fiscal analyses are meant to describe, and list reimbursable public improvements and compare the anticipated cost of the improvements to the total impact fees generated by the development and paid to the city. These reimbursable improvements are for public infrastructure that will be built by the developer and dedicated to the city.

The amount of the improvements that “qualify” as reimbursable improvements may cost more or less than the amount that is generated by the impact fees. When there is a difference in the costs compared to the generated funds, the fiscal analysis may explain how that surplus or deficit of funds are to be handled.

The fiscal analysis is intended to be a guiding document and not a specific accounting of costs for the improvements or a specific accounting of the funds that will be generated by impact fees.

Skye Area Plan

Proposed Power Capital Improvements vs. Projected Fee Income

Capital Improvements - Power

Item	Quantity	Units		Cost/Unit		Item Cost
Participation in New Sub-Station(s)/Sub-Station Property Value	1	ls	$	3,158,967	$	3,158,967
Total Estimated Capital Improvements					$	3,158,967

Impact Fee Generation - Power

Land Use	Units	Approx. KVA		Impact Fee per Unit or KVA		Total
Non-Residential						
Commercial/Civic	261	6372	$	52.38	$	333,740
Schools	1		$	319,154.44	$	319,154
Residential						
LD	182	1456	$	1,979.52	$	360,273
MD	484	3872	$	1,979.52	$	958,088
HD	228	1368	$	1,484.64	$	338,498
VHD (Mixed Use Area)	572	3432	$	1,484.64	$	849,214
Total Estimated Impact Fees					$	3,158,967

NET:	**$**	**0**

Notes:

1. Single family panel size assumed to be 200 A
2. Multi family panel size assumed to be 125 A
3. KVA of Commercial area was found from the equation kVA = (kW)*(Power Factor). Power Factor is assumed to be 60% and kW is assumed to be 10,620 kW per the master plan.
4. Impact fee per kVA for Commercial/Civic area was calculated by averaging the costs per kVA from the city's impact fee table.

Skye Area Plan

Proposed Sewer Capital Improvements vs. Projected Fee Income

Capital Improvements - Sewer

Item	Quantity	Units	Cost/Unit	Item Cost
Upsize 12" Sewer Main to 18" Sewer Main with Manholes (Located between Center Street and 500 W)	2,083	lf	$ 60	$ 124,980
Upgrade Existing Lift Station	1	ls	$ 1,231,608	$ 1,231,608
Total Estimated Capital Improvements				$ 1,356,588

Impact Fee Generation - Sewer

Land Use	#ERU	Impact Fee	Total
Non-Residential			
Commercial/Civic	261	$ 761.43	$ 198,733
Schools	1	$ 41,597.95	$ 41,598
Residential			
LD	182	$ 761.43	$ 138,580
MD	484	$ 761.43	$ 368,532
HD	228	$ 761.43	$ 173,606
VHD (Mixed Use Area)	572	$ 761.43	$ 435,538
Total Estimated Impact Fees			$ 1,356,588

NET: $ (0)

Notes:

1. In the event that additional impact fees are collected with future amendments to this area plan, fees will be used to reimburse the developer's costs as shown above.

2. In the event that impact fees increase during the development of this area plan, the additional difference will be used toward reimbursement of these capital improvements.

Skye Area Plan

Proposed Storm Water Capital Improvements vs. Projected Fee Income

Capital Improvements - Storm Water

Item	Quantity	Units	Cost/Unit	Item Cost
36" RCP Trunkline with Manholes	2,669	lf	$ 235	$ 627,215
24" RCP Trunkline with Manholes	1,958	lf	$ 115	$ 225,113
Developer Cost	1	ls	$ (334,736)	$ (334,736)
Total Estimated Capital Improvements				$ 517,591

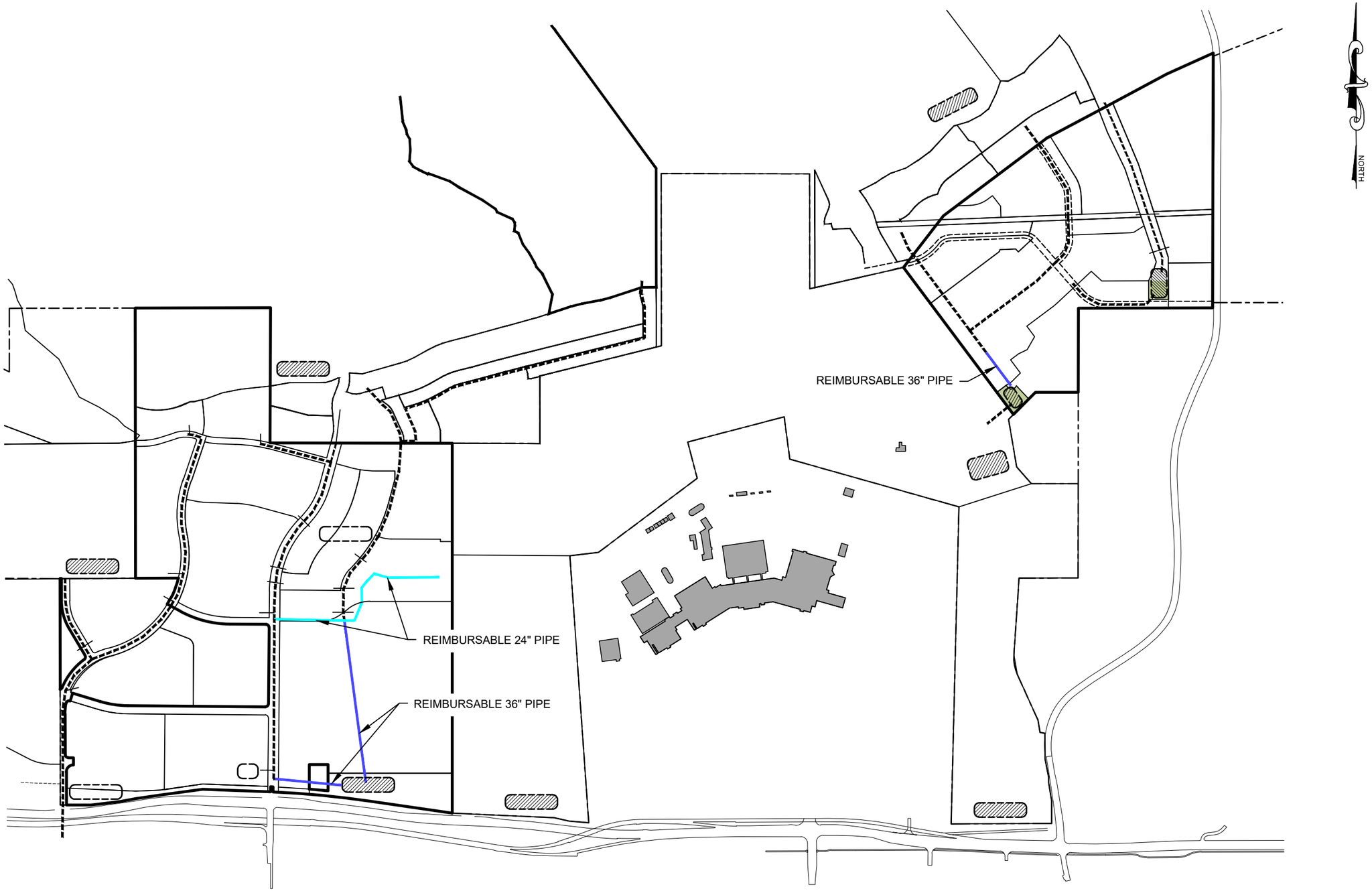
Impact Fee Generation - Storm Water

Land Use	#ERU	Acreage	Impact Fee	Total
Non-Residential				
Commercial/Civic		112.78	$ 1,391	$ 156,873
Schools	1		$ 59,813	$ 59,813
Residential				
LD	182		$ 347.75	$ 63,291
MD	484		$ 347.75	$ 168,311
HD		20.72	$ 1,391	$ 28,822
VHD (Mixed Use Area)		29.10	$ 1,391	$ 40,482
Total Estimated Impact Fees				$ 517,591
NET:				**$ -**

Notes:

1. In the event that additional impact fees are collected with future amendments to this area plan, fees will be used to reimburse the developer's costs as shown above.

2. In the event that impact fees increase during the development of this area plan, the additional difference will be used toward reimbursement of these capital improvements.



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1430

SKYE
LEHI, UTAH

STORM DRAIN REIMBURSEMENT EXHIBIT

REVISIONS
1 -
2 -
3 -
4 -
5 -

LEI PROJECT #: 2011-0066
DRAWN BY: RWH
DESIGNED BY: BCT
SCALE: 1" = 1000'
DATE: 07/11/2022
SHEET
E1

Skye Area Plan

Proposed Culinary Water Capital Improvements vs. Projected Impact Fee Income

Capital Improvements - Culinary

Item	Quantity	Units		Cost/Unit		Item Cost
New Well Construction including wellhouse, permits, fees, connection	1	ls	$	3,270,000	$	3,270,000
8" Culinary Line from well to exising water lines (existing roads)	4,800	lf	$	228	$	1,094,400
12" Booster Pump Line	1,868	lf	$	395	$	737,860
Booster pump station at Existing City tank	1	ls	$	675,000	$	675,000
Culinary storage tank	1,080,000	gal	$	2.85	$	3,078,000
All weather access road (50% included here, 50% with P.I.)	4,300	lf	$	1.85	$	7,955
Developer Cost	1	ls	$	(6,770,671)	$	(6,770,671)
Total Estimated Capital Improvements					$	2,092,544

Impact Fee Generation - Culinary

Land Use	#ERU		Impact Fee		Total
Non-Residential					
Commercial/Civic	261	$	1,194.07	$	311,652
Schools	1	$	30,385.55	$	30,386
Residential					
LD	182	$	1,194.07	$	217,321
MD	484	$	1,194.07	$	577,930
HD	228	$	1,194.07	$	272,248
VHD (Mixed Use Area)	572	$	1,194.07	$	683,008
Total Estimated Impact Fees				$	2,092,544

NET:	**$**	**0**

Notes:

1. In the event that additional impact fees are collected with future amendments to this area plan, fees will be used to reimburse the developer's costs as shown above.
2. In the event that impact fees increase during the development of this area plan, the additional difference will be used toward reimbursement of these capital improvements.

Skye Area Plan

Proposed Pressurized Irrigation (PI) Capital Improvements vs. Projected Fee Income

Pressurized Irrigation

Item	Quantity	Units		Cost/Unit		Item Cost
New Well Construction including wellhouse, permits, fees, connection	1	ls	$	3,600,000	$	3,600,000
Booster pump station at existing City Reservoir	1	ls	$	650,000	$	650,000
12" Booster Pump Line	2,538	lf	$	395	$	1,002,510
PI Storage Reservoir	1,271,866	gal	$	1.50	$	1,907,799
All weather access road (50% included here, 50% with Culinary)	4,300	lf	$	1.85	$	7,955
Developer Cost	1	ls	$	(6,000,945)	$	(6,000,945)
Total Estimated Capital Improvements					$	1,167,319

Impact Fee Generation - PI

Land Use	#ERU	Acreage		Impact Fee		Total
Non-Residential						
Commercial/Civic		28.19	$	6,736.35	$	189,927
Schools	1		$	171,130.62	$	171,131
Residential						
LD	182		$	1,094.66	$	199,228
MD	484		$	1,094.66	$	529,814
HD		10.36	$	4,378.63	$	45,363
VHD (Mixed Use Area)		7.28	$	4,378.63	$	31,857
Total Estimated Impact Fees					**$**	**1,167,319**

NET:	**$**	**0**

Notes:

1. All Mixed Use, commercial, and civic sites assumed to have 25% pervious area.
2. All Townhome (HD) areas assumed to have 50% pervious area.
3. In the event that additional impact fees are collected with future amendments to this area plan, fees will be used to reimburse the developer's costs as shown above.
4. In the event that impact fees increase during the development of this area plan, the additional difference will be used toward reimbursement of these capital improvements.

Skye Area Plan

Proposed Roads Capital Improvements vs. Projected Fee Income

Capital Improvements - Roads

Item	Quantity	Units	Cost/Unit	Item Cost
4330 N				
Additional ROW dedication required beyond standard cross section	0.23	ac	$ 160,000	$ 36,217
Upper 500 W				
Additional ROW dedication required beyond standard cross section	0.19	ac	$ 160,000	$ 30,817
East Side Roads				
Additional ROW dedication required beyond standard cross section	0.69	ac	$ 160,000	$ 109,826
Upper Center St				
Additional 3" Asphalt, 6" Base, 8" Subbase	3,810	sf	$ 4.25	$ 16,193
Additional ROW dedication required beyond standard cross section	0.31	ac	$ 160,000	$ 48,981
3950 N				
Additional 5" Asphalt, 8" Base, 15" Subbase	2,148	sf	$ 4.25	$ 9,129
Additional ROW dedication required beyond standard cross section	0.07	ac	$ 160,000	$ 11,835
Middle Center Street				
Additional 5" Asphalt, 8" Base, 15" Subbase	1,756	sf	$ 4.25	$ 7,463
Additional ROW dedication required beyond standard cross section	0.16	ac	$ 160,000	$ 25,800
Traverse Terrace Dr				
Additional 5" Asphalt, 8" Base, 15" Subbase	4,138	sf	$ 4.25	$ 17,587
Lower Center Street				
Additional 5" Asphalt, 8" Base, 15" Subbase	10,460	sf	$ 4.25	$ 44,455
Additional ROW dedication required beyond standard cross section	0.77	ac	$ 160,000	$ 122,946
Intersection Improvements				
Traffic Signal at Highland Blvd/Grant Blvd	1	ls	$ 350,000	$ 350,000
Intersection Improvements at Highland Blvd/Grant Blvd	1	ls	$ 120,000	$ 120,000
Traffic Signal at Highland Blvd/11800 N[1]	1	ls	$ 116,667	$ 116,667
Intersection Improvements at Highland Blvd/11800 N	1	ls	$ 120,000	$ 120,000
Traffic Signal at Center Street/SR92	1	ls	$ 500,000	$ 500,000
Intersection Improvements at Center Street/SR92[3]	1	ls	$ 600,000	$ 600,000
Regional Improvements	1	ls	$ 184,239	$ 184,239
Total Estimated Capital Improvements				$ 2,472,152

Impact Fee Generation - Roads

Land Use	Building Area (SF)	ERU's	Impact Fee PER Unit/SF	Total
Non-Residential				
Commercial/Civic	1240000	261	$ 0.88	$ 1,091,200
Schools		1	$ 39,994.46	$ 39,994
Residential				
LD		182	$ 1,163	$ 211,666
MD		484	$ 1,163	$ 562,892
HD		228	$ 708	$ 161,424
VHD (Mixed Use Area)		572	$ 708	$ 404,976
Total Estimated Impact Fees				$ 2,472,152

NET: $ 0

Notes:

1. A tri-party agreement between Lehi City, Draper City, and the developer requires that each party participates in 1/3 of the cost of this traffic signal.
2. In the event that impact fees increase during the development of this area plan, the additional difference will be used toward reimbursement of these capital improvements.
3. The costs associated with the SR-92 intersection do not include any road widening or improvements on the south leg of the intersection. (New traffic signal and re-striping on the south leg is included)
4. Any modifications requested by the city to any of the existing roadway improvements in 500 West, Traverse Terrace Blvd, 3950 N, Center Street, & Maple Hollow Blvd shall be reimbursed by the city through funds not generated by impact fees from this development.

Skye Area Plan

Proposed Parks Improvements vs. Projected Fee Income

Parks

	Quantity	Units	Cost/Unit	Item Cost
10' asphalt trail w/3" asphalt and 6" roadbase (within Area Plan Boundary)	10,368	lf	$ 50	$ 518,400
10' asphalt trail w/ 3" asphalt and 6" roadbase (within Technical Manufacturing Buffer)	8,842	lf	$ 50	$ 442,100
Multi-use natural surface trail (Trail 9 on Sheet OS-4)	3,849	lf	$ 12	$ 46,188
Parking lot within Open Space 4	1	ls	$ 250,000	$ 250,000
Regional park improvements[4]	1	ls	$ 2,522,445	$ 2,522,445
Total Estimated Capital Improvements				$ 3,779,133

Impact Fee Generation - Parks

Land Use			Total
Residential			
LD	182	$ 2,772.98	$ 504,682
MD	484	$ 2,772.98	$ 1,342,122
HD	228	$ 2,415.41	$ 550,713
VHD (Mixed Use Area)	572	$ 2,415.41	$ 1,381,615
Total Estimated Impact Fees			$ 3,779,133

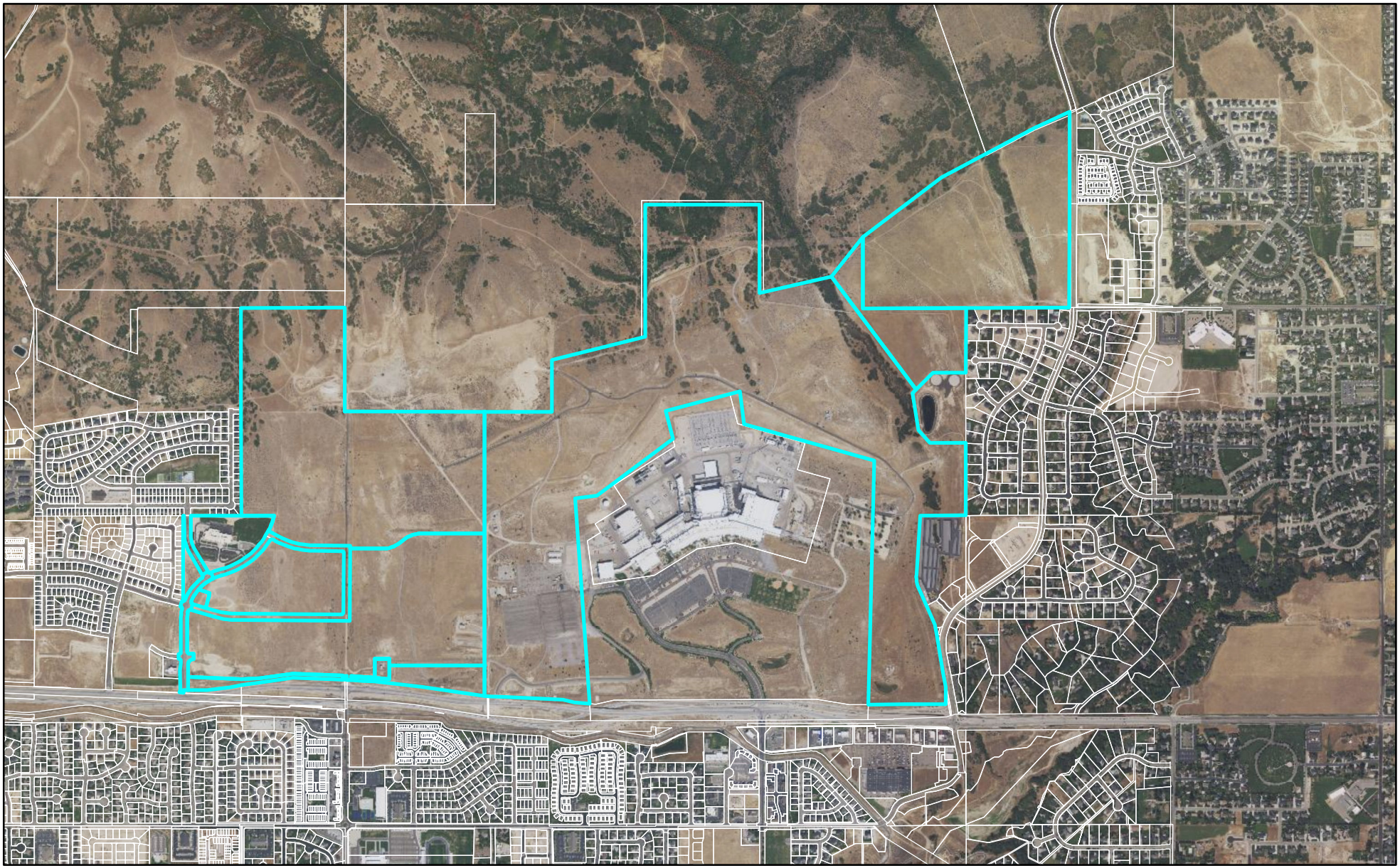
NET: **$ (0)**

Notes:

1. Any natural surface trails are to be constructed by a professional trail builder as approved by the city.
2. In the event that impact fees increase during the development of this area plan, the additional difference will be used toward reimbursement of these capital improvements.
3. All capital improvements shown here are public improvements. Additional private parks improvements shall be installed by the developer at their expense.
4. The intended regional park improvements will be built at some future time and may include the following: trailheads, parkings lots, bike maintenance facilities, trails, and any additional onsite or offsite city facilities/parks or amenities as necessary. The improvements may be constructed by Lehi City or the developer as mutually agreed upon.

Skye Area Plan

Aerial

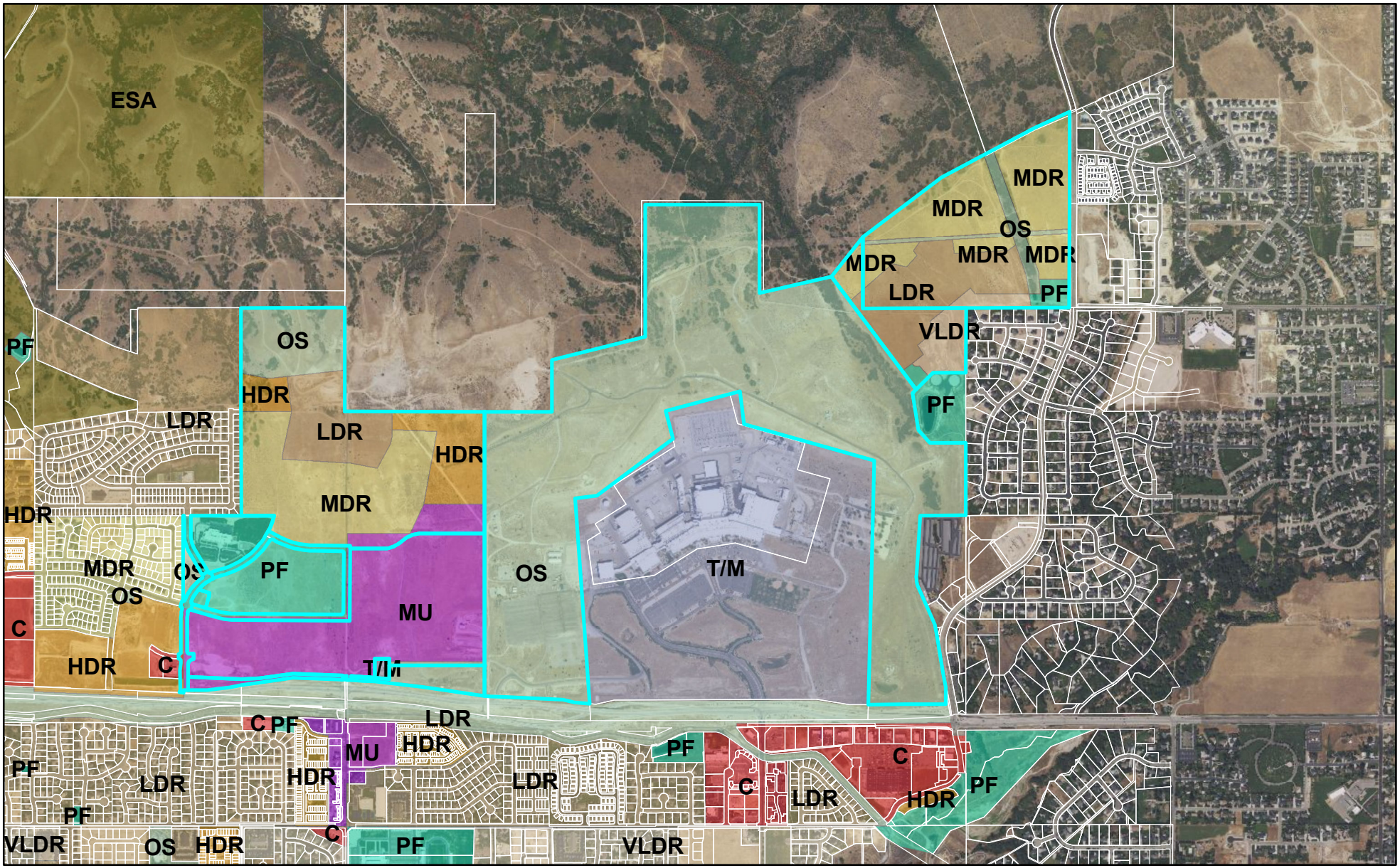


0 2,100 4,200 Feet

LEHI CITY

Skye Area Plan

General Plan

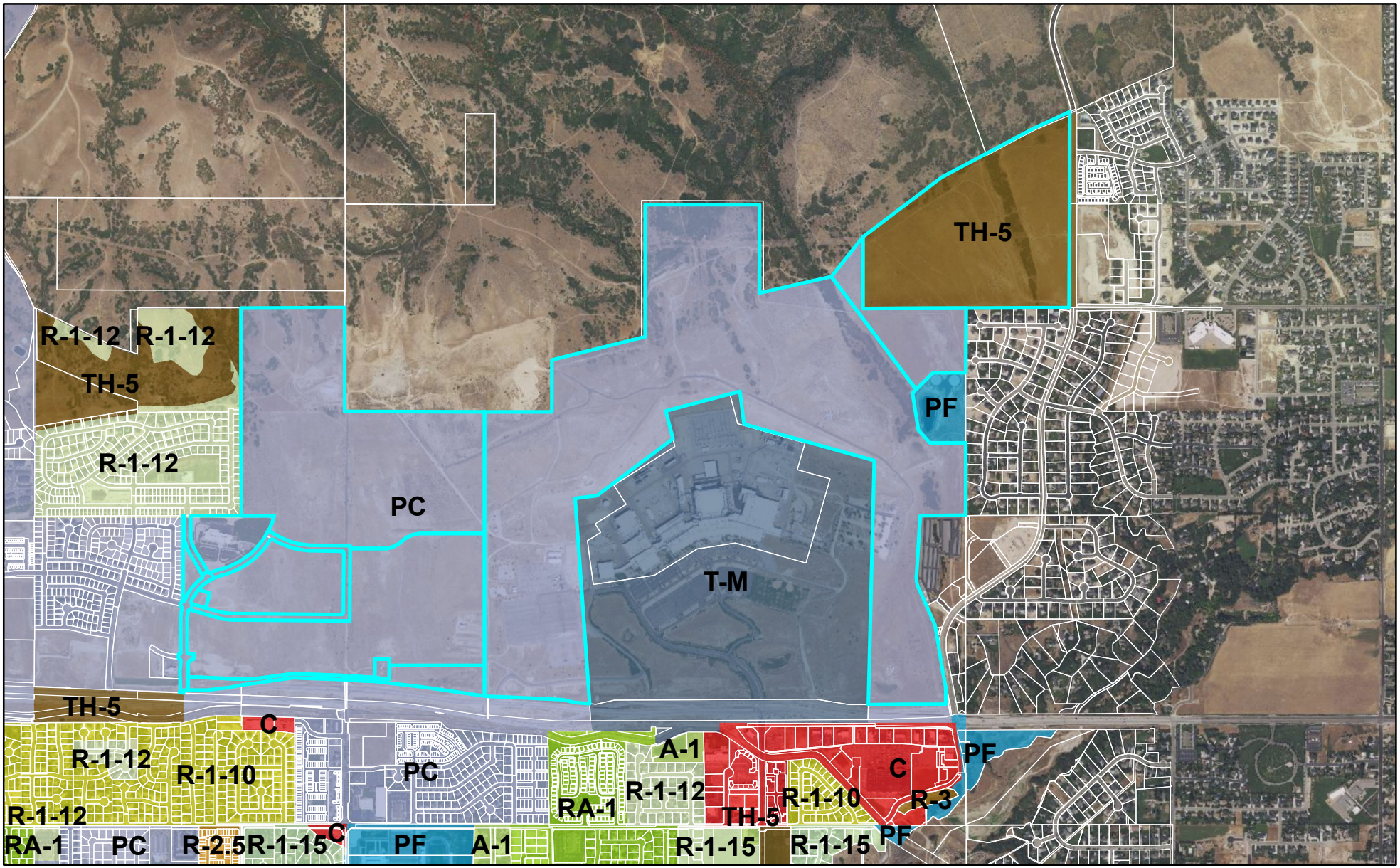


0 2,100 4,200 Feet

LEHI CITY

Skye Area Plan

Zoning



0 2,100 4,200 Feet

LEHI CITY

Agenda Item No: 15

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Brittney Harris
Submitting Department: Planning Division
Item Type: Ordinance
Agenda Section: Regular Agenda

Subject:
Municipal Boundary Adjustment between Lehi City and Draper, consisting of 1,035.49-acres of property located at approximately 4600 North 1200 East with TH-5 (transitional holding) zoning.
a. Public Hearing
b. Consideration of Ordinance #43-2022, approving the Skye Lehi Addition Draper-Lehi Municipal Boundary Adjustment.

Suggested Action:

Attachments:

CC Staff Report Draper Lehi Municipal Boundary Line Adjustment 08.23.22.docx

Draper Lehi Municipal Boundaries Adjustment DRC 06.08.22.docx

Ord 43-2022.docx

Narrative - Draper Annexation.pdf

Skye - Lehi Addition Boundary Adjustment Plat.pdf

Aerial Map.pdf

General Plan Map.pdf

Zoning Map.pdf

DRAPER- LEHI MUNICIPAL BOUNDARY LINE ADJUSTMENT

CITY COUNCIL REPORT

Applicant	D R Horton		
Meeting Date	August 23, 2022		
Requested Action/Purpose	Approval of a proposed Boundary Line Adjustment with Draper City		
Requested Zoning	TH-5		
Acreage	1,035.49 acres		
Existing Land Use	Undeveloped and hillside		
Adjacent Zoning and Land Use	*North*	Draper	Undeveloped Hillside/Maple Hollow at Suncrest Subdivision
	South	Planned Community	Micron
	East	County/ Highland	Undeveloped/ Micron East Annexation
	West	Draper	Undeveloped Hillside
Assigned Planner	Brittney Harris		
Date of City Council Resolution	June 14, 2022		
Date of Planning Commission	July 14, 2022		

REQUIRED ACTION

City Council	Acceptance of municipal boundary line adjustment resolution
Planning Commission	Review and recommendation on proposed zoning
City Council	Final approval of municipal boundary line

UTAH STATE CODE

Title 10 Chapter 2 Part 4 Section 419
10-2-419. Boundary adjustment -- Notice and hearing -- Protest.

(1) The legislative bodies of two or more municipalities having common boundaries may adjust their common boundaries as provided in this section.

(2) The legislative body of each municipality intending to adjust a boundary that is common with another municipality shall:

(a) adopt a resolution indicating the intent of the municipal legislative body to adjust a common boundary; and

(b) hold a public hearing on the proposed adjustment no less than 60 days after the adoption of the resolution under Subsection (2)(a).

(3) A legislative body described in Subsection (2) shall provide notice of a public hearing described in Subsection (2)(b):

(a) (i) at least three weeks before the day of the public hearing, by posting one notice, and at least one additional notice per 2,000 population of the municipality, in places within the municipality that are most likely to give notice to residents of the municipality, subject to a maximum of 10 notices; or

(ii) at least three weeks before the day of the public hearing, by mailing notice to each residence in the municipality;

(b) by posting notice on the Utah Public Notice Website, created in Section 63A-16-601, for three weeks before the day of the public hearing;

(c) if the proposed boundary adjustment may cause any part of real property owned by the state to be within the geographic boundary of a different local governmental entity than before the adjustment, by providing written notice, at least 50 days before the day of the public hearing, to:

(i) the title holder of any state-owned real property described in this Subsection (3)(d); and

(ii) the Utah State Developmental Center Board, created under Section 62A-5-202.5, if any state-owned real property described in this Subsection (3)(d) is associated with the Utah State Developmental Center; and

(d) if the municipality has a website, by posting notice on the municipality's website for three weeks before the day of the public hearing.

(4) The notice described in Subsection (3) shall:

(a) state that the municipal legislative body has adopted a resolution indicating the municipal legislative body's intent to adjust a boundary that the municipality has in common with another municipality;

(b) describe the area proposed to be adjusted;

(c) state the date, time, and place of the public hearing described in Subsection (2)(b);

(d) state in conspicuous and plain terms that the municipal legislative body will adjust the boundaries unless, at or before the public hearing described in Subsection (2)(b), a written protest to the adjustment is filed by:

(i) an owner of private real property that:

(A) is located within the area proposed for adjustment;

(B) covers at least 25% of the total private land area within the area proposed for adjustment; and

(C) is equal in value to at least 15% of the value of all private real property within the area proposed for adjustment; or

(ii) a title holder of state-owned real property described in Subsection (3)(d);

(e) state that the area that is the subject of the boundary adjustment will, because of the boundary adjustment, be automatically annexed to a local district providing fire protection, paramedic, and emergency services or a local district providing law enforcement service, as the case may be, as provided in Section 17B-1-416, if:

(i) the municipality to which the area is being added because of the boundary adjustment is entirely within the boundaries of a local district:

(A) that provides fire protection, paramedic, and emergency services or law enforcement service, respectively; and

(B) in the creation of which an election was not required because of Subsection 17B-1-214(3)(c); and

(ii) the municipality from which the area is being taken because of the boundary adjustment is not within the boundaries of the local district; and

(f) state that the area proposed for annexation to the municipality will be automatically withdrawn from a local district providing fire protection, paramedic, and emergency services, as provided in Subsection 17B-1-502(2), if:

(i) the municipality to which the area is being added because of the boundary adjustment is not within the boundaries of a local district:

(A) that provides fire protection, paramedic, and emergency services; and

(B) in the creation of which an election was not required because of Subsection 17B-1-214(3)(c); and

(ii) the municipality from which the area is being taken because of the boundary adjustment is entirely within the boundaries of the local district.

(5) Upon conclusion of the public hearing described in Subsection (2)(b), the municipal legislative body may adopt an ordinance approving the adjustment of the common boundary unless, at or before the hearing described in Subsection (2)(b), a written protest to the adjustment is filed with the city recorder or town clerk by a person described in Subsection (3)(c)(i) or (ii).

(6) The municipal legislative body shall comply with the requirements of Section 10-2-425 as if the boundary adjustment were an annexation.

(7) (a) An ordinance adopted under Subsection (5) becomes effective when each municipality involved in the boundary adjustment has adopted an ordinance under Subsection (5).

(b) The effective date of a boundary adjustment under this section is governed by Section 10-2-425.

REPORT ANALYSIS

The applicant requests approval of the Draper-Lehi Municipal Boundary Line Adjustment including approximately 1,035 acres with TH-5 zoning.

Planning Staff requests that the Council makes the approval of this municipal boundary line adjustment contingent on the approval of the proposed General Plan Land Use Designation and concept plans that are also before the Council for consideration tonight. Making this approval contingent on the General Plan Land Uses and Concept Plan will ensure that both the City and the Developer agree on what future development can take place on this land.

This municipal boundary adjustment previously came to the City Council and received approval October 12, 2021. That proposal only included 163 acres. During DR Horton's process working with Draper City, Draper's City Council indicated that they only wanted to adjust the boundary line once. DR Horton worked with the other property owners to include their properties. This updated plat includes all of the land south of the Maple Hollow at Suncrest Subdivision in Draper.

Providing services to the area is one of the main reasons behind the proposed municipal boundary line adjustment. The area in question resides at a lower elevation than the surrounding area in Draper. That creates some issues with providing sewer. It also can make providing police, fire and EMT services more difficult.

One of the greatest benefits for Lehi City in having the land come into the city is the ability to dictate the land use. The current zoning proposal is for transitional holding (TH-5). TH-5 zoning allows land to come into the city without water dedication and does not allow for any new development. The applicant has stated their future intent to rezone the property they own to Planned Community (PC) and incorporate the rezoned area into the Skye Area Plan. The proposed General Plan designations and concept plan will indicate the proposed land uses and densities and will provide the opportunity for the City Council to establish densities and consider the compatibility of the proposal with surrounding land uses.

The DRC reviewed the proposed Boundary Line Adjustment and had one redline comment to update the plat title to specify the boundary adjustment is between Draper and Lehi.

POSSIBLE MOTIONS AND FINDINGS

The City Council may approve or deny the proposed Draper Lehi Municipal Boundary Line Adjustment. Any motion should include findings. Possible findings include:

1. The proposed TH-5 zoning is/is not consistent with the Lehi City General Plan Land Use Map and Goals.
2. The proposed municipal boundary line adjustment will provide the opportunity to preserve steep slope areas as open space.
3. The proposed municipal boundary line adjustment does/does not conform to the goals and policies of the General Plan.
4. Other findings as determined by the public hearing.

PLANNING COMMISSION RECOMMENDATION

The Planning Commission reviewed the proposed Municipal Boundary Line Adjustment on July 14, 2022. The minutes and motion from that meeting follow.

3.1) Public hearing and recommendation of Lehi City's request for an annexation & municipal boundary adjustment between Lehi City and Draper, approximately 1,035.49-acres of property located at approximately 4600 North 1200 East with TH-5 (transitional holding) zoning.

Jacob Curtis presented information on the agenda item.

There were some concerns where the water will come from. Ross Dinsdale stated water rights will be obtained when the annexation is finalized.

Commissioner Nielsen opened the public hearing.

Commissioner Nielsen closed the public hearing.

Commissioner Jackson wanted to clarify that this item is solely recommending annexation.

> **Motion:** Commissioner Eyre moved to recommend approval of **Lehi City's request for an annexation & municipal boundary adjustment between Lehi City and Draper, approximately 1,035.49-acres of property located at approximately 4600 North 1200 East with TH-5 (transitional holding) zoning**; including the DRC comments and findings stated in the report, noting that it is zoned at TH-5. Commissioner Everett seconded.
>
> **Vote:** Commissioner Nielsen, yes; Commissioner Everett, yes; Commissioner Britton, yes; Commissioner Carlson; yes; Commissioner Jackson, yes; Commissioner Eyre, yes; Commissioner Newall, yes. The vote passed unanimously.

Draper Municipal Boundaries Adjustment
DRC Redline Comments

DR Horton – requests review of a resolution to begin the process of adjusting the municipal boundaries between Lehi City and Draper City on 1,035.49 acres of property located at approximately 4600 North and 1200 East.

DRC Members Present: Glade Kirkham, Garion Rowett, Greg Allred, Matthew Meier, Kim Struthers, Gary Smith, Ross Dinsdale, Trent Dyer, Luke Seegmiller
Representatives of the Applicant Present:
Date of Plans Reviewed: 5/26/22
Time Start: 1:48pm
Time End:

DRC REDLINE COMMENTS:
Glade – Power: No comments
Garion – Fire: No comments
Greg – Water/Sewer: No comments
Trent – Parks: No comments
Gary – Building/Inspections: No comments
Matt – Public Works: No comments
Ross – Engineering: No comments
Luke- Traffic: No comments
Kim – Planning:
1. Adding below the Municipal Boundary Adjustment Title "adjusting the boundary between Draper and Lehi"

THIS ITEM IS SCHEDULED FOR CITY COUNCIL ON JUNE 14, 2022

Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

ORDINANCE NO: 43-2022

AN ORDINANCE APPROVING THE SKYE LEHI ADDITION DRAPER-LEHI MUNICIPAL BOUNDARY LINE ADJUSTMENT

WHEREAS, the Lehi City Council has adopted a resolution of intent to adjust the boundary line with Draper at the border of the two municipalities north of the Texas Instruments Facility, incorporating approximately 1,035.49 acres into Lehi City. This area is further identified by Exhibit "A" pursuant to the provisions of Section 10-2-418 of the Utah Code; and

WHEREAS, the Lehi City Council conducted a public hearing on the 26th day of July, 2022, after having published notice as also required by Section 10-2-418 of the Utah Code; and

WHEREAS, the Lehi City Council noted that there were no protests filed to defeat the annexation as required by Section 10-2-418 of the Utah Code.

NOW, THEREFORE, IT IS ORDAINED by the City Council of Lehi City, Utah, as follows:

Section 1. The Lehi City Council finds that the proposed Lehi-Draper Boundary Line Adjustment as more fully described on the transparent reproducible Boundary Line Adjustment Plat and the attached Exhibit "A", in the judgment of Lehi City, meets the standards set forth in Section 10-2-418 of the Utah Code.

Section 2. The area as specifically described in the Boundary Line Adjustment Plat is hereby annexed to Lehi City, subject to compliance with the terms and provisions of the Annexation Agreement, a copy of which is attached hereto.

Section 3. Pursuant to Utah Code Ann. §10-9-406, the City Council hereby assigns the TH-5 zoning district designation to the territory depicted on the Boundary Line Adjustment Plat which is being annexed to Lehi City by this ordinance, and further directs that the Official Zoning District Map of Lehi City be amended to show the area as part of Lehi City with the new zoning district designation.

Section 4. The Mayor is hereby authorized to sign this ordinance. Once all provisions of the Boundary Line Adjustment Agreement which conditions precedent to the Adjustment are have been complied with, the City Recorder is directed to file the transparent reproducible Boundary Line Adjustment Plat, together with a certified copy of this ordinance in the office of the Utah County Recorder

Section 5. This ordinance shall become effective on the date that it is filed in the office of the Utah County Recorder.

Approved and adopted by the Lehi City Council this 23rd day of August, 2022

ATTEST

MARK JOHNSON, Mayor	Teisha Wilson, City Recorder

EXHIBIT "A"

A portion of Sections 21, 22, 27 and 28 of Township 4 South, Range 1 East, Salt Lake Base and Meridian, described by survey as follows:

Beginning at a point on the existing Lehi City/Draper City Municipal Boundary, being the Northeast Corner of Section 28, Township 4 South, Range 1 East, Salt Lake Base and Meridian; thence along said Municipal Boundary Line the following sixteen (16) courses: thence N89°51'16"W along the Section Line 1447.16 feet; thence S00°02'37"E 1674.43 feet; thence S14°00'50"E 21.61 feet; thence S75°59'46"W 1253.90 feet; thence S00°01'27"E 660.44 feet to the Quarter Section Line; thence N89°50'30"W along the Quarter Section Line 2658.08 feet to the West Quarter Corner of said Section 28; thence N00°10'43"E along the Section Line 1328.17 feet; thence S89°54'27"W 2658.57 feet; thence S00°19'35"E 586.75 feet; thence N72°05'00"W 316.80 feet; thence N64°12'00"W 1094.28 feet; thence N70°40'31"W 46.13 feet; thence N25°00'00"W 452.10 feet; thence N33°45'50"W 520.08 feet; thence N32°15'00"W 374.88 feet; thence N09°15'00"W 249.54 feet; thence along the Draper City Municipal Boundary Line the following three (3) courses: East 4710.10 feet to a point on the East line of Section 20, T4S, R1E, SLB&M (said point being 1.14 chains north of the Southeast Corner of said Section 20); thence N0°13'47"E along the Section Line 2564.86 feet to the West 1/4 Corner of Section 21, T4S, R1E, SLB&M; thence N0°13'28"E along the Section Line 1346.52 feet to the south line of that Record of Survey prepared by Stantec Engineering on file in the office of the Utah County Surveyor as Survey No. 12-154; thence N89°59'41"E along said survey line 3420.94 feet to a found rebar and cap set in concrete monument; thence S0°00'19"E along said survey line and in part along the west line of ***MAPLE HOLLOW 10, 11, & 13 AT SUNCREST*** subdivision 715.98 feet; thence along the southerly line of ***MAPLE HOLLOW 10, 11, & 13 AT SUNCREST*** subdivision the following two (2) courses: N89°59'41"E 2900.00 feet; thence N73°56'41"E 899.58 feet to a found rebar and cap set in concrete monument, said point being the northwest corner of the Alpine Joint Venture LTD property as defined by that Record of Survey prepared by Wilding Engineering on file in the office of the Utah County Surveyor as Survey No. 16-134 (said point being monumented with a found rebar and cap set in concrete); thence along said survey line the following three (3) courses: S19°19'38"E 3047.04 feet to a found brass cap stamped "M17" set in concrete; thence N61°40'44"E 697.56 feet to a found brass cap stamped "M18" set in concrete; thence N65°46'11"E 516.99 feet to the westerly right-of-way line of Highland Boulevard as described by Deed Entry No. 153953:2002 in the official records of the Utah County recorder; thence along said right-of-way line along the arc of a non-tangent curve to the right 32.13 feet with a radius of 623.00 feet through a central angle of 02°57'16", chord: S05°15'26"E 32.12 feet to the existing Lehi City/Draper City Municipal Boundary; thence along said Municipal Boundary Line the following seven (7) courses: thence S66°30'00"W 515.64 feet; thence S62°15'00"W 989.34 feet; thence S62°30'00"W 304.92 feet; thence S53°15'00"W 1310.10 feet; thence S38°15'00"W 630.96 feet; thence S77°15'00"W 955.02 feet; thence N00°02'17"W 1133.33 feet to the point of beginning.

Contains: ±1,035.49 Acres
±45,106,123 Sq. Ft.

NARRATIVE
BOUNDARY LINE ADJUSTMENT AND ANNEXATION BETWEEN DRAPER AND LEHI CITY AT THE REQUEST OF D.R. HORTON

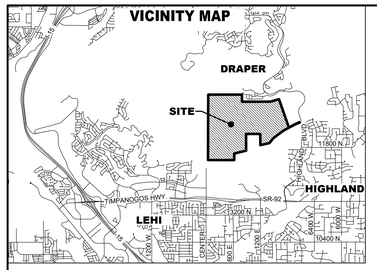
In an effort to provide some information and a summary narrative of the proposed boundary line adjustment and annexation which will move 1,035 acres of land from Draper City into Lehi City named:

The topography is mixed with some hill side slopes but is mostly mild and consistent throughout as it slopes from the North to the South East at an approximately 8% to 10% grade. There is some scrub oak on the east side of the land, but the majority of the land is dry and barren with native field grass.

Currently the land is completely vacant and is not used for anything. D.R. Horton intends to improve the mildly sloped land for residential homes to be built at an approximate density of 3 units per acre as part of the D.R. Horton development Area Plan. It is currently planned to dedicate to Lehi City as open space the rest of the hillside land which will include a trail system for the benefit of Lehi City and her residents. These parcels have already been anticipated to be annexed into Lehi City as part of a previously approved Area Plan is consistent with what the Lehi City General Plan indicates.

As the Area Plan is amended to include this portion of land, we will need to plan and install the needed infrastructure for all utilities for residential homes. Current planning and engineering for the land that is already part of the existing and approved Micron Area Plan will include designing the infrastructure and improvements for these 163 acres.

The needed water shares are either already dedicated to the city for the Area Plan or we are and will be purchasing the needed rights. We plan to have all the water needed and ready to be dedicated to the city at the time the City requires them.



LEGEND	
	SECTION CORNERS
	EXISTING CITY BOUNDARIES
	ANNEXATION BOUNDARY LINE

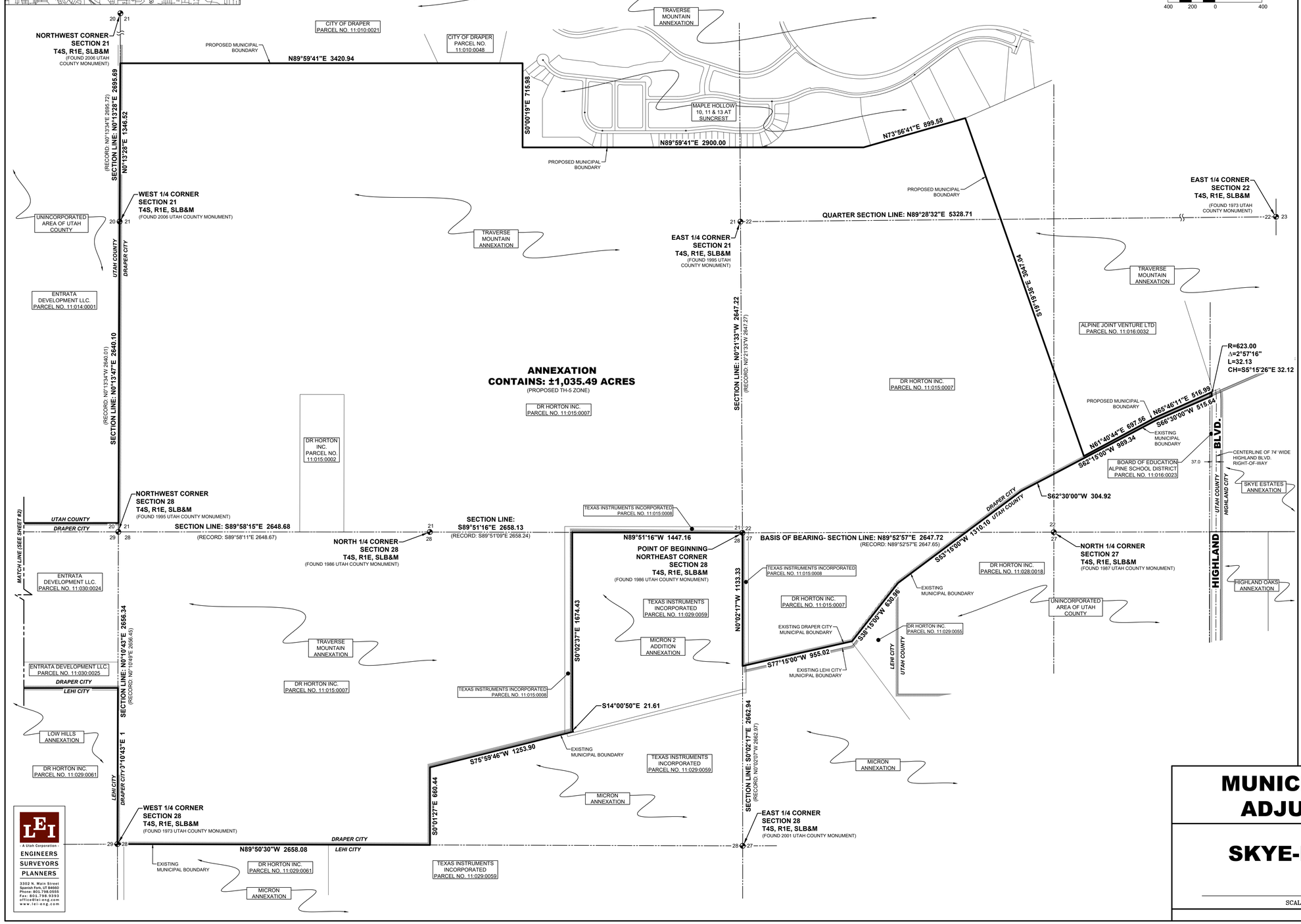
NOTES

1. THE BASIS OF BEARING FOR THIS SURVEY IS N89°52'57"E BETWEEN THE SOUTHWEST CORNER AND THE SOUTH 1/4 CORNER OF SECTION 22, TOWNSHIP 4 SOUTH, RANGE 1 EAST, SALT LAKE BASE & MERIDIAN.
2. ALL DEEDS, SUBDIVISION, & ANNEXATION PLATS HAVE BEEN ROTATED TO THE BASIS OF BEARING DESCRIBED ABOVE.

NORTH

SCALE: 1" = 400'

400 200 0 400



LEI
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ENGINEERS
SURVEYORS
PLANNERS
3302 N. Main Street
Spanish Fork, UT 84660
Phone: 801.798.0555
Fax: 801.798.9393
office@lei-eng.com
www.lei-eng.com

SURVEYOR'S CERTIFICATE

I, CHAD A. POULSEN, DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, AND THAT I HOLD CERTIFICATE NO. 501182 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY THAT THIS PLAT OF ANNEXATION TO THE CORPORATE LIMITS OF LEHI CITY, UTAH COUNTY, UTAH, IS A TRUE AND CORRECT REPRESENTATION OF DATA COMPILED FROM RECORDS ON FILE IN THE OFFICE OF THE UTAH COUNTY RECORDER.

BOUNDARY DESCRIPTION

A portion of Sections 21, 22, 27 and 28 of Township 4 South, Range 1 East, Salt Lake Base and Meridian, described by survey as follows:

Beginning at a point on the existing Lehi City/Draper City Municipal Boundary, being the Northeast Corner of Section 28, Township 4 South, Range 1 East, Salt Lake Base and Meridian; thence along said Municipal Boundary Line the following sixteen (16) courses: thence N89°51'16"W along the Section Line 1447.16 feet; thence S00°02'37"E 1674.43 feet; thence S14°00'50"E 21.61 feet; thence S75°59'46"W 1253.90 feet; thence S00°01'27"E 660.44 feet to the Quarter Section Line; thence N89°50'30"W along the Quarter Section Line 2658.08 feet to the West Quarter Corner of said Section 28; thence N00°10'43"E along the Section Line 1328.17 feet; thence S89°54'27"W 2658.57 feet; thence S00°19'35"E 586.75 feet; thence N72°05'00"W 316.80 feet; thence N64°12'00"W 1094.28 feet; thence N70°40'31"W 46.13 feet; thence N25°00'00"W 452.10 feet; thence N33°45'50"W 520.08 feet; thence N32°15'00"W 374.88 feet; thence N09°15'00"W 249.54 feet; thence along the Draper City Municipal Boundary Line the following three (3) courses: East 4710.10 feet to a point on the East line of Section 20, T4S, R1E, SLB&M (said point being 1.14 chains north of the Southeast Corner of said Section 20); thence N0°13'47"E along the Section Line 2564.86 feet to the West 1/4 Corner of Section 21, T4S, R1E, SLB&M; thence N0°13'28"E along the Section Line 1346.52 feet to the south line of that Record of Survey prepared by Stantec Engineering on file in the office of the Utah County Surveyor as Survey No. 12-154; thence N89°59'41"E along said survey line 3420.94 feet to a found rebar and cap set in concrete monument; thence S0°00'19"E along said survey line and in part along the west line of ***MAPLE HOLLOW 10, 11, & 13 AT SUNCREST*** subdivision 715.98 feet; thence along the southerly line of ***MAPLE HOLLOW 10, 11, & 13 AT SUNCREST*** subdivision the following two (2) courses: N89°59'41"E 2900.00 feet; thence N73°56'41"E 899.58 feet to a found rebar and cap set in concrete monument, said point being the northwest corner of the Alpine Joint Venture LTD property as defined by that Record of Survey prepared by Wilding Engineering on file in the office of the Utah County Surveyor as Survey No. 16-134 (said point being monumented with a found rebar and cap set in concrete); thence along said survey line the following three (3) courses: S19°19'38"E 3047.04 feet to a found brass cap stamped "M17" set in concrete; thence N61°40'44"E 697.56 feet to a found brass cap stamped "M18" set in concrete; thence N65°46'11"E 516.99 feet to the westerly right-of-way line of Highland Boulevard as described by Deed Entry No. 153953:2002 in the official records of the Utah County recorder; thence along said right-of-way line along the arc of a non-tangent curve to the right 32.13 feet with a radius of 623.00 feet through a central angle of 02°57'16", chord: S05°15'26"E 32.12 feet to the existing Lehi City/Draper City Municipal Boundary; thence along said Municipal Boundary Line the following seven (7) courses: thence S66°30'00"W 515.64 feet; thence S62°15'00"W 989.34 feet; thence S62°30'00"W 304.92 feet; thence S53°15'00"W 1310.10 feet; thence S38°15'00"W 630.96 feet; thence S77°15'00"W 955.02 feet; thence N00°02'17"W 1133.33 feet to the point of beginning.

Contains: ±1,035.49 Acres
±45,106,123 Sq. Ft.

CHAD A. POULSEN
PROFESSIONAL LAND SURVEYOR
REGISTRATION NO. 501182

May 19, 2022
DATE

STATE OF UTAH
CHAD A. POULSEN
No. 501182
PROFESSIONAL LAND SURVEYOR
5/19/2022
SURVEYOR'S SEAL

ACCEPTANCE BY DRAPER CITY LEGISLATIVE BODY

THIS IS TO CERTIFY THAT WE, THE DRAPER CITY COUNCIL, HEREBY TAKE ACTION TO ADJUST THE BOUNDARIES OF DRAPER CITY, UTAH, SO AS TO EXCLUDE THE TRACT OF LAND SHOWN HEREON AND HAVE SUBSEQUENTLY ADOPTED AN ORDINANCE EXCLUDING SAID TRACT FROM THE BOUNDARIES OF SAID CITY, AND THAT A COPY OF THE ORDINANCE HAS BEEN PREPARED FOR FILING HEREWITH. ALL IN ACCORDANCE WITH UTAH CODE SECTION 10-2-419 AND 10-2-425, AS AMENDED, AND THAT WE HAVE EXAMINED, AND HEREBY APPROVE AND ACCEPT THE BOUNDARY ADJUSTMENT OF THE TRACT AS SHOWN AND THAT SAID TRACT OF LAND IS TO BE KNOWN AS THE

SKYE-LEHI ADDITION.

DATED THIS _____ DAY OF _____, A.D. 20 ____

DRAPER CITY MAYOR

ATTEST: _____
DRAPER CITY RECORDER

RECORDER'S SEAL

ACCEPTANCE BY LEHI CITY LEGISLATIVE BODY

THIS IS TO CERTIFY THAT WE, THE LEHI CITY COUNCIL, HEREBY TAKE ACTION TO ADJUST THE BOUNDARIES OF LEHI CITY, UTAH, SO AS TO INCLUDE THE TRACT OF LAND SHOWN HEREON AND HAVE SUBSEQUENTLY ADOPTED AN ORDINANCE INCLUDING SAID TRACT INTO THE BOUNDARIES OF SAID CITY, AND THAT A COPY OF THE ORDINANCE HAS BEEN PREPARED FOR FILING HEREWITH, ALL IN ACCORDANCE WITH UTAH CODE SECTION 10-2-419 AND 10-2-425, AS AMENDED, AND THAT WE HAVE EXAMINED, AND HEREBY APPROVE AND ACCEPT THE BOUNDARY ADJUSTMENT OF THE TRACT AS SHOWN AND AS A PART OF SAID CITY AND THAT SAID TRACT OF LAND IS TO BE KNOWN HEREAFTER AS THE

SKYE-LEHI ADDITION.

DATED THIS _____ DAY OF _____, A.D. 20 ____

LEHI CITY MAYOR

ATTEST: _____
LEHI CITY RECORDER

RECORDER'S SEAL

ACCEPTANCE BY COUNTY SURVEYOR

THIS PLAT HAS BEEN REVIEWED BY THE COUNTY SURVEYOR AND IS HEREBY CERTIFIED AS A FINAL LOCAL ENTITY PLAT, PURSUANT TO UTAH CODE ANNOTATED 17-23-20 AMENDED.

COUNTY SURVEYOR

COUNTY SURVEYOR SEAL

MUNICIPAL BOUNDARY ADJUSTMENT PLAT

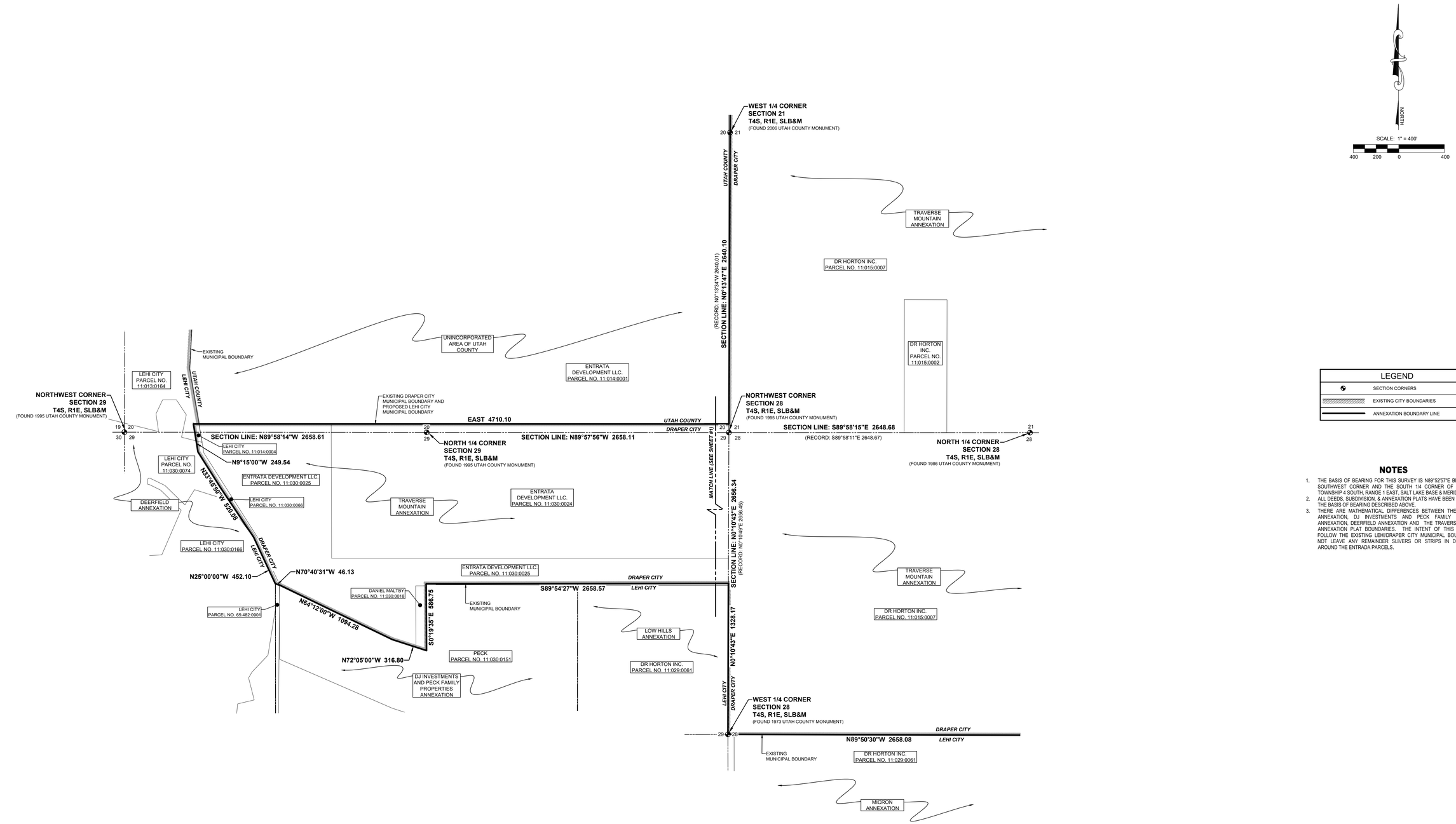
SKYE-LEHI ADDITION

LEHI CITY UTAH COUNTY, UTAH

SCALE: 1" = 400 FEET

SHEET: 1 OF 2

UTAH COUNTY RECORDER



LEGEND	
	SECTION CORNERS
	EXISTING CITY BOUNDARIES
	ANNEXATION BOUNDARY LINE

NOTES

1. THE BASIS OF BEARING FOR THIS SURVEY IS N89°52'57"E BETWEEN THE SOUTHWEST CORNER AND THE SOUTH 1/4 CORNER OF SECTION 22, TOWNSHIP 4 SOUTH, RANGE 1 EAST, SALT LAKE BASE & MERIDIAN.
2. ALL DEEDS, SUBDIVISION, & ANNEXATION PLATS HAVE BEEN ROTATED TO THE BASIS OF BEARING DESCRIBED ABOVE.
3. THERE ARE MATHEMATICAL DIFFERENCES BETWEEN THE LOW HILLS ANNEXATION, DJ INVESTMENTS AND PECK FAMILY PROPERTIES ANNEXATION, DEERFIELD ANNEXATION AND THE TRAVERSE MOUNTAIN ANNEXATION PLAT BOUNDARIES. THE INTENT OF THIS PLAT IS TO FOLLOW THE EXISTING LEHI/DRAPER CITY MUNICIPAL BOUNDARY AND NOT LEAVE ANY REMAINDER SLIVERS OR STRIPS IN DRAPER CITY AROUND THE ENTRADA PARCELS.

LEI
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www.lei-eng.com

MUNICIPAL BOUNDARY ADJUSTMENT PLAT

SKYE-LEHI ADDITION

LEHI CITY UTAH COUNTY, UTAH

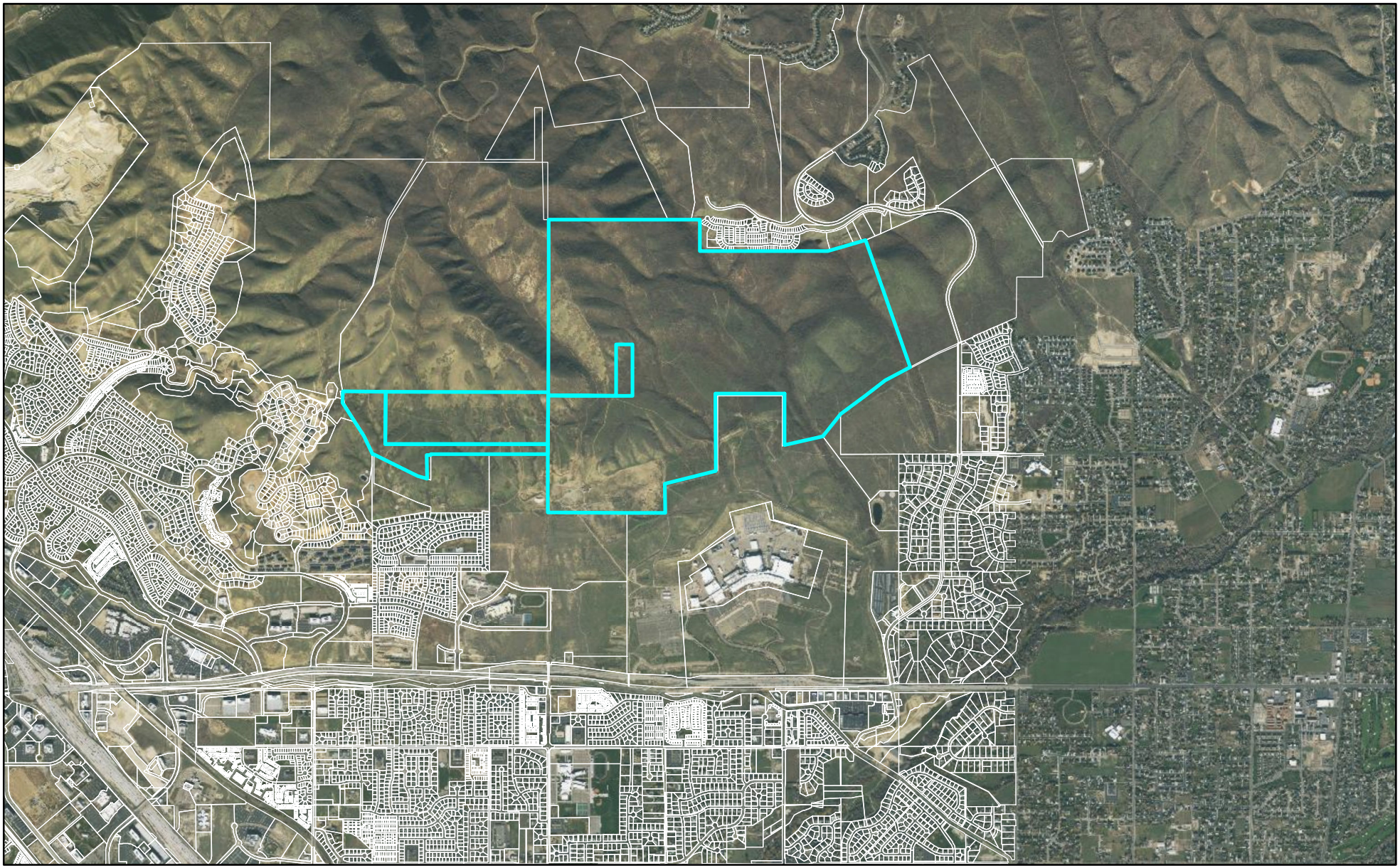
SCALE: 1" = 400 FEET

SHEET: 2 OF 2

UTAH COUNTY RECORDER

Skye-Lehi Addition Municipal Boundary Line Adjustment with Draper

Aerial

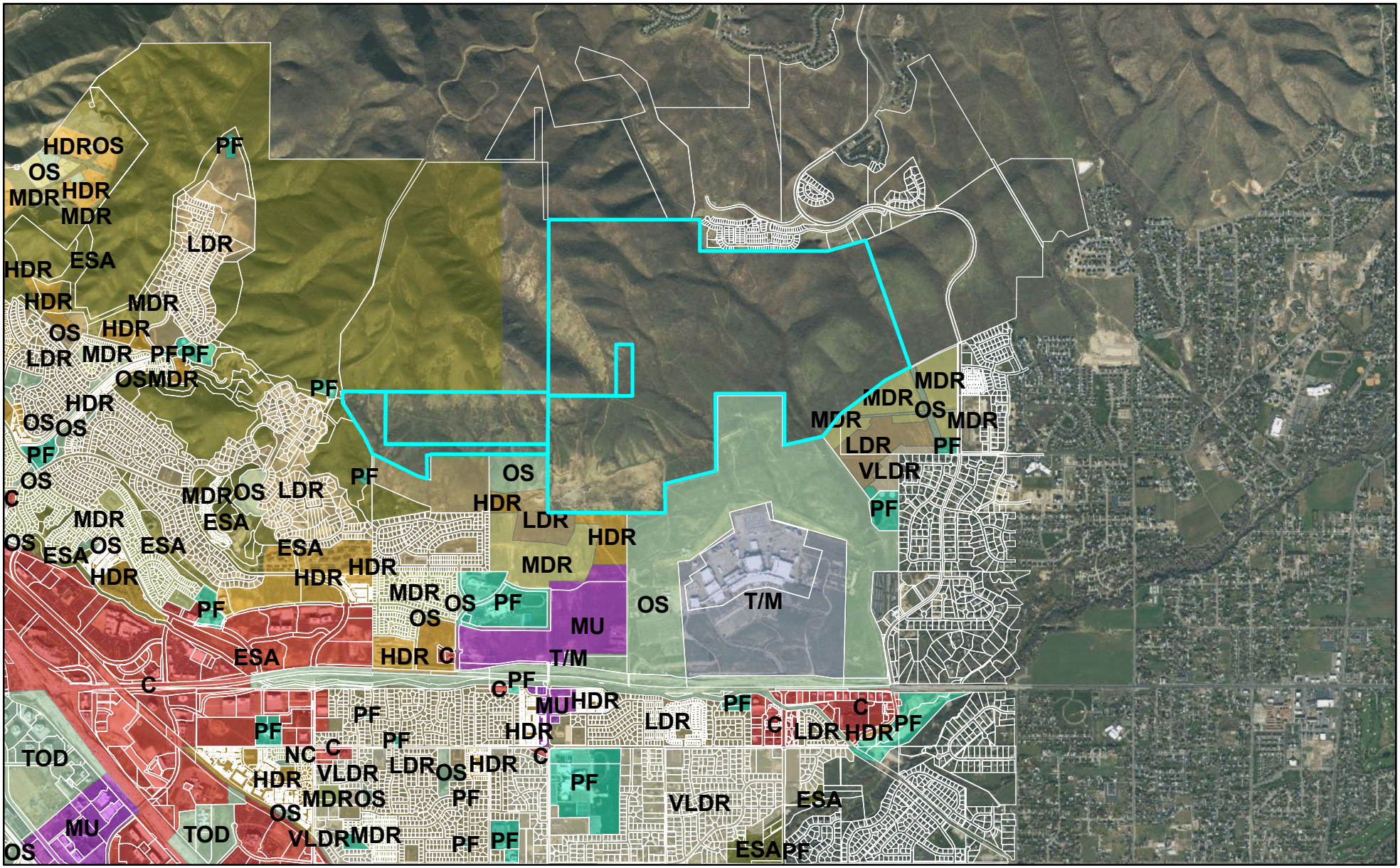


0 3,750 7,500 Feet

LEHI CITY

Skye-Lehi Addition Municipal Boundary Line Adjustment with Draper

General Plan

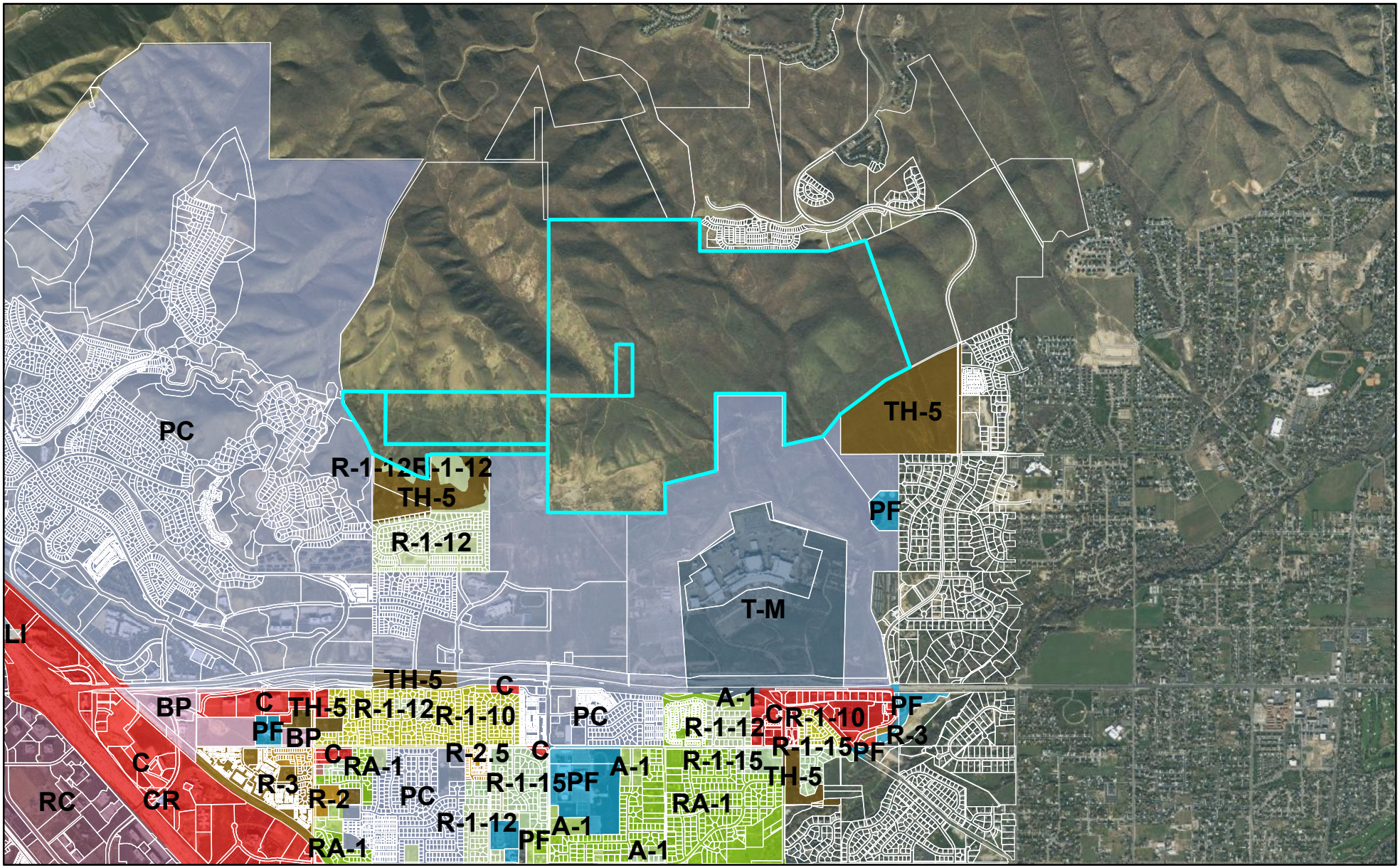


0 3,750 7,500 Feet

LEHI CITY

Skye-Lehi Addition Municipal Boundary Line Adjustment with Draper

Zoning



0 3,750 7,500 Feet

LEHI CITY

Agenda Item No: 16

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Brittney Harris
Submitting Department: Planning Division
Item Type: Ordinance
Agenda Section: Regular Agenda

Subject:
Consideration of Ordinance #47-2022, a General Plan Amendment for the Skye-Lehi Addition (boundary adjustment between Lehi City & Draper), on approximately 1,035.49-acres of property with the proposed General Plan Designations of Environmentally Sensitive Area (ESA), High Density Residential (HDR), Medium Density Residential (MDR), and Low Density Residential (LDR).

Suggested Action:

Attachments:

CC Staff Report General Plan Land Use Designations Draper Boundary Line Adjustment 08.23.22.docx

GP Land Use Designations-Draper Boundry Line DRC 07.27.22.docx

Ord 47-2022.docx

Proposed General Plan Designations Map.pdf

Aerial Map.pdf

General Plan Map.pdf

Zoning Map.pdf

DRAPER- LEHI BOUNDARY ADJUSTMENT
GENERAL PLAN LAND USE DESIGNATIONS
CITY COUNCIL REPORT

Applicant	DR Horton		
Meeting Date	August 23, 2022		
Requested Action/Purpose	Approval of a proposed general plan land use designations		
Decision Type	Legislative		
Location	North of Texas Instruments		
Acreage	1,035.49 acres		
Existing Zoning	Proposed TH-5		
Existing General Plan Land Use Designation	None		
Proposed Land Use Designation	ESA, LDR, MDR, HDR		
Existing Land Use	Undeveloped		
Adjacent Zoning and Land Use	*North*	Draper	Undeveloped Hillside
	South	Planned Community	Micron
	East	County/ Highland	Undeveloped/ Micron East Annexation
	West	Draper	Undeveloped Hillside
Date of DRC Review	July 27, 2022		
Date of Planning Commission Review	August 4, 2022		
Assigned Planner	Brittney Harris		

REQUIRED ACTION

Planning Commission	Review and recommendation
City Council	Final approval

APPLICABLE DEVELOPMENT CODE REGULATIONS

Section 04.060 Criteria for Approval
The Planning Commission should consider the following factors, among others, when reviewing a General Plan amendment:

1. The effect of the proposed amendment on the character of the surrounding area;
2. Consistency with the goals and policies of the General Plan;
3. Consistency and compatibility of the proposed zone with the General Plan land uses of nearby and adjoining properties;
4. The suitability of the properties for the uses requested and their suitability for the existing uses identified by the General Plan;
5. Whether a change in the uses allowed for the affected properties will unduly affect the uses, or proposed uses for nearby and adjoining properties;
6. The gain to the public health, safety, and welfare from the existing classification to the proposed amendment; and
7. The overall community benefit of the proposed amendment.

APPLICABLE GENERAL PLAN GOALS AND POLICIES

PARKS AND RECREATION

Provide a diverse and connected system of parks, trails, and recreational facilities that provide all residents access to a wide range of recreational opportunities.

Strategy 2: Use greenways, bike ways, and trails to interconnect both regional and neighborhood open spaces and developed areas

REPORT ANALYSIS

The applicant requests approval of the proposed General Plan Land Use designations on approximately 1,035-acres of property proposed to come into Lehi City as part of the Draper-Lehi municipal boundary adjustment.

Because the land currently is in Draper, the Lehi City General Plan has no designated land uses for this property. The applicant proposed land use designations for this property and approval of these designations is tied to approval of the Municipal Boundary Adjustment. These proposed land use designations are also tied to the Skye Area Plan Second Amendment Concept Plan which shows what the proposed layout would be with these proposed land uses. All three are tied together and should receive some consideration as a whole.

The applicant proposes areas designated as High Density Residential (HDR), Medium Density Residential (MDR), Low Density Residential (LDR), and Environmentally Sensitive Area (ESA). The map shows where the proposed uses are located. The applicant does not own all the land and not all the land is shown in the concept plan. However, they do show a proposed land use designation for all the land as required for it coming into Lehi City.

The ESA areas are proposed to be dedicated to Lehi City and have a conservation easement placed on them.

The DRC reviewed the proposed General Plan Land Use Designations and had the following three comments:

1. The proposed General Plan designations are similar to with some small deviations from the concept City Council approved June 29, 2021. Approval of these General Plan Land Use designations does not bind the City Council to future approval of the Skye Area Plan or zone change to Planned Community.
2. Hold the LDR areas away from the slopes more.
3. The approval of the General Plan Amendment is subject to approval of the boundary line adjustment and concept plan. As part of the boundary adjustment agreement the approved densities are defined for each land use designation/area, and dedication of the DR Horton open space to Lehi City with a conservation easement.

POSSIBLE MOTIONS AND FINDINGS

The City Council may approve or deny the proposed General Plan Land Use Designations. Any motion should include findings. Possible findings include:

1. The proposed general plan land use designations fit/do not fit with the surrounding areas.
2. The proposed general plan land use designations benefit/do not benefit Lehi City.
3. The proposed amendment to the Lehi City General Plan is/is not detrimental to the public health, safety, and welfare of Lehi City.
4. The proposed General Plan amendment is/is not in conformance with the purposes, intent, and provisions of the General Plan and its various elements.
5. The proposed General Plan amendment is/is not consistent with the land uses and zoning of nearby and adjoining properties.

6. The proposed General Plan amendment will/will not have a substantial adverse effect on surrounding property.
7. The affected site is/is not physically suitable in terms of design, location, shape, size, operating characteristics, and the provision of public services to accommodate any potential future uses, including all landscaping, loading areas, open spaces, parking areas, setbacks, buffering/screening, walls, fences, yards, and other required features.
8. Additional findings based upon information presented during the public hearing.

PLANNING COMMISSION RECOMMENDATION

The Planning Commission reviewed the proposed Skye Addition General Plan Land Use Designation on August 4, 2022. The motion and minutes from that meeting have been included separately.

Draper Boundary Line Adjustment- Skye-Lehi
DRC Redline Comments

DR Horton- requests review of the Skye-Lehi Addition Draper Boundary Line Adjustment, assigning general plan designations on 1,035.49-acres of property located north & northwest of the Texas Instrument plant.

DRC Members Present: Glade Kirkham, Garion Rowett, Greg Allred, Matthew Meier, Kim Struthers, Gary Smith, Ross Dinsdale, Trent Dyer, Luke Seegmiller
Representatives of the Applicant Present: Adam Loser and Ben Tuckett
Date of Plans Reviewed: 7/21/22
Time Start: 1:57pm
Time End: 2:01pm

DRC REDLINE COMMENTS:
Glade – Power: No comments
Garion – Fire: No comments
Greg – Water/Sewer: No comments
Trent – Parks: No comments
Gary – Building/Inspections: No comments
Matt – Public Works: No comments
Ross – Engineering: No comments
Luke- Traffic: No comments
Kim – Planning:

1. The proposed General Plan designations are similar to with some small deviations from the concept City Council approved June 29, 2021. Approval of these General Plan Land Use designations does not bind the City Council to future approval of the Skye Area Plan or zone change to Planned Community.
2. Hold the LDR areas away from the slopes more.
3. The approval of the General Plan Amendment is subject to approval of the boundary line adjustment and concept plan. As part of the boundary adjustment agreement the approved densities are defined for each land use designation/area, and dedication of the DR Horton open space to Lehi City with a conservation easement.

THIS ITEM IS SCHEDULED FOR PLANNING COMMISSION ON AUGUST 4th

Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

ORDINANCE NO: 47-2022

ORDINANCE AMENDING THE LAND USE ELEMENT OF THE LEHI CITY GENERAL PLAN AND THE GENERAL PLAN LAND USE MAP FOR AREA IN THE SKYE ADDTION LEHI-DRAPER MUNICIPAL BOUNDARY LINE ADJUSTMENT

WHEREAS, on August 23, 2022, following all necessary public hearings, the Lehi City Council adopted an amendment to the Lehi City General Plan which included the 2022 Land Use Element together with the Lehi City General Plan Land Use Map; and

WHEREAS, the Lehi City Planning Commission held a public hearing on August 4, 2022, to review and make a recommendation on the General Plan Amendment located north of Texas Instruments providing land use designations for the area including Environmentally Sensitive Area (ESA), Low Density Residential (LDR), Medium Density Residential (MDR), High Density Residential (HDR) as shown on Exhibit "A" and forwarded their recommendation to the City Council; and

WHEREAS, the City Council held a public meeting on August 23, 2022, pursuant to the requirements for amendment of the Land Use Element of the Lehi City General Plan and General Plan Land Use Map to include the land uses Environmentally Sensitive Area (ESA), Low Density Residential (LDR), Medium Density Residential (MDR), High Density Residential (HDR).

NOW, THEREFORE, IT IS ORDAINED BY THE CITY COUNCIL OF LEHI CITY, UTAH AS FOLLOWS:

PART 1:

The Land Use Element of the Lehi City General Plan and General Plan Land Use Map is hereby amended to add land uses Environmentally Sensitive Area (ESA), Low Density Residential (LDR), Medium Density Residential (MDR), High Density Residential (HDR) on this property. The total amendment will include approximately 1,035-acres of property located north of Texas Instruments, more specifically shown on Exhibit "A" attached hereto.

PART II:

If a provision of this Ordinance 47 -2022 conflicts with a provision of a previously adopted ordinance concerning the same title, chapter, and/or section number amended herein, the provision in this Ordinance shall prevail.

A. This ordinance and its various section, clauses and paragraphs are hereby declared to be severable. If any part, sentence, clause or phrase is adjudged to be unconstitutional or invalid, the remainder shall not be affected thereby.

B. The City Council hereby directs that the official copy of the Lehi City General Plan be updated to reflect the provisions enacted by this Ordinance.

D. This Ordinance shall take effect immediately after being posted or published as required by law.

Approved and Adopted by the City Council of Lehi City this 23rd day of August 2022.

ATTEST

_____ _____

Mark Johnson, Mayor Teisha Wilson, City Recorder

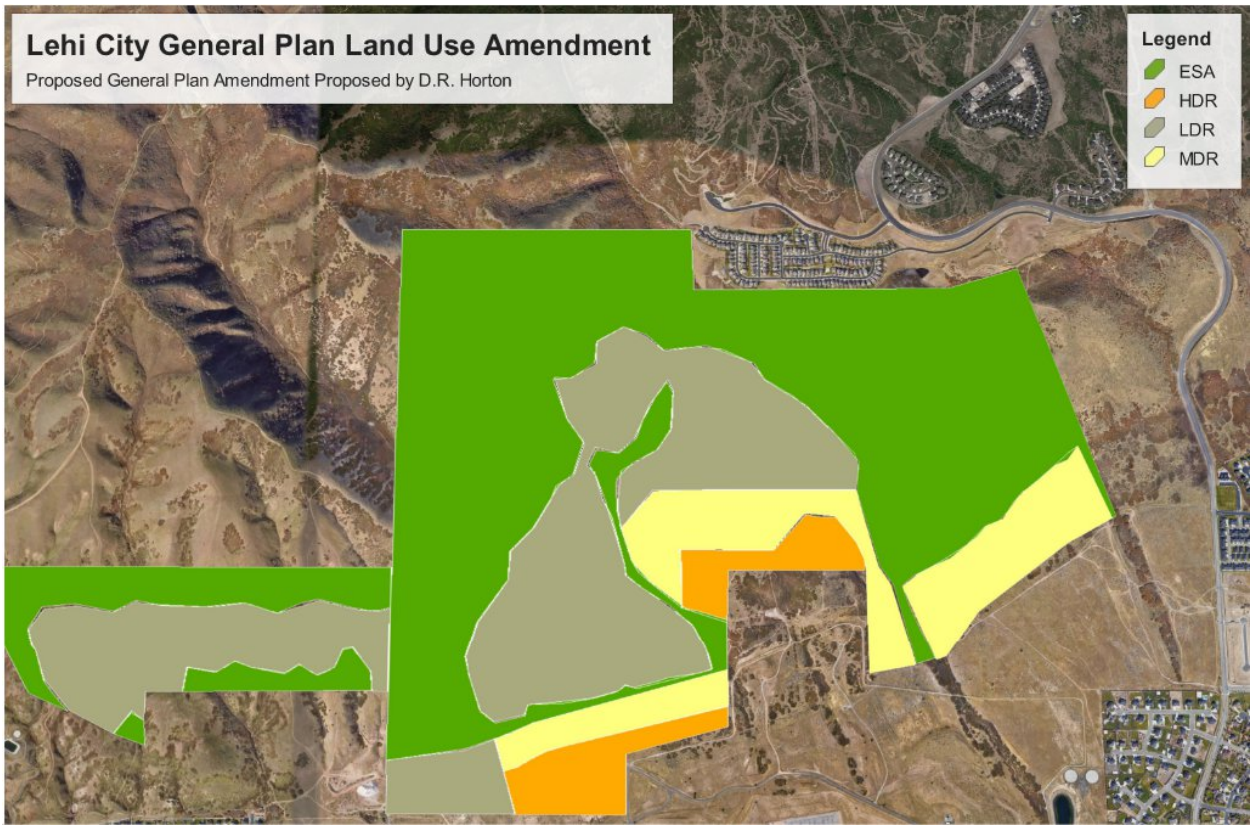
Exhibit A

A portion of Sections 21, 22, 27 and 28 of Township 4 South, Range 1 East, Salt Lake Base and Meridian, described by survey as follows:

Beginning at a point on the existing Lehi City/Draper City Municipal Boundary, being the Northeast Corner of Section 28, Township 4 South, Range 1 East, Salt Lake Base and Meridian; thence along said Municipal Boundary Line the following sixteen (16) courses: thence N89°51'16"W along the Section Line 1447.16 feet; thence S00°02'37"E 1674.43 feet; thence S14°00'50"E 21.61 feet; thence S75°59'46"W 1253.90 feet; thence S00°01'27"E 660.44 feet to the Quarter Section Line; thence N89°50'30"W along the Quarter Section Line 2658.08 feet to the West Quarter Corner of said Section 28; thence N00°10'43"E along the Section Line 1328.17 feet; thence S89°54'27"W 2658.57 feet; thence S00°19'35"E 586.75 feet; thence N72°05'00"W 316.80 feet; thence N64°12'00"W 1094.28 feet; thence N70°40'31"W 46.13 feet; thence N25°00'00"W 452.10 feet; thence N33°45'50"W 520.08 feet; thence N32°15'00"W 374.88 feet; thence N09°15'00"W 249.54 feet; thence along the Draper City Municipal Boundary Line the following three (3) courses: East 4710.10 feet to a point on the East line of Section 20, T4S, R1E, SLB&M (said point being 1.14 chains north of the Southeast Corner of said Section 20); thence N0°13'47"E along the Section Line 2564.86 feet to the West 1/4 Corner of Section 21, T4S, R1E, SLB&M; thence N0°13'28"E along the Section Line 1346.52 feet to the south line of that Record of Survey prepared by Stantec Engineering on file in the office of the Utah County Surveyor as Survey No. 12-154; thence N89°59'41"E along said survey line 3420.94 feet to a found rebar and cap set in concrete monument; thence S0°00'19"E along said survey line and in part along the west line of ***MAPLE HOLLOW 10, 11, & 13 AT SUNCREST*** subdivision 715.98 feet; thence along the southerly line of ***MAPLE HOLLOW 10, 11, & 13 AT SUNCREST*** subdivision the following two (2) courses: N89°59'41"E 2900.00 feet; thence N73°56'41"E 899.58 feet to a found rebar and cap set in concrete monument, said point being the northwest corner of the Alpine Joint Venture LTD property as defined by that Record of Survey prepared by Wilding Engineering on file in the office of the Utah County Surveyor as Survey No. 16-134 (said point being monumented with a found rebar and cap set in concrete); thence along said survey line the following three (3) courses: S19°19'38"E 3047.04 feet to a found brass cap stamped "M17" set in concrete; thence N61°40'44"E 697.56 feet to a found brass cap stamped "M18" set in concrete; thence N65°46'11"E 516.99 feet to the westerly right-of-way line of Highland Boulevard as described by Deed Entry No. 153953:2002 in the official records of the Utah County recorder; thence along said right-of-way line along the arc of a non-tangent curve to the right 32.13 feet with a radius of 623.00 feet through a central angle of 02°57'16", chord: S05°15'26"E 32.12 feet to the existing Lehi City/Draper City Municipal Boundary; thence along said Municipal Boundary Line the following seven (7) courses: thence S66°30'00"W 515.64 feet; thence S62°15'00"W 989.34 feet; thence S62°30'00"W 304.92 feet; thence S53°15'00"W 1310.10 feet; thence S38°15'00"W 630.96 feet; thence S77°15'00"W 955.02 feet; thence N00°02'17"W 1133.33 feet to the point of beginning.

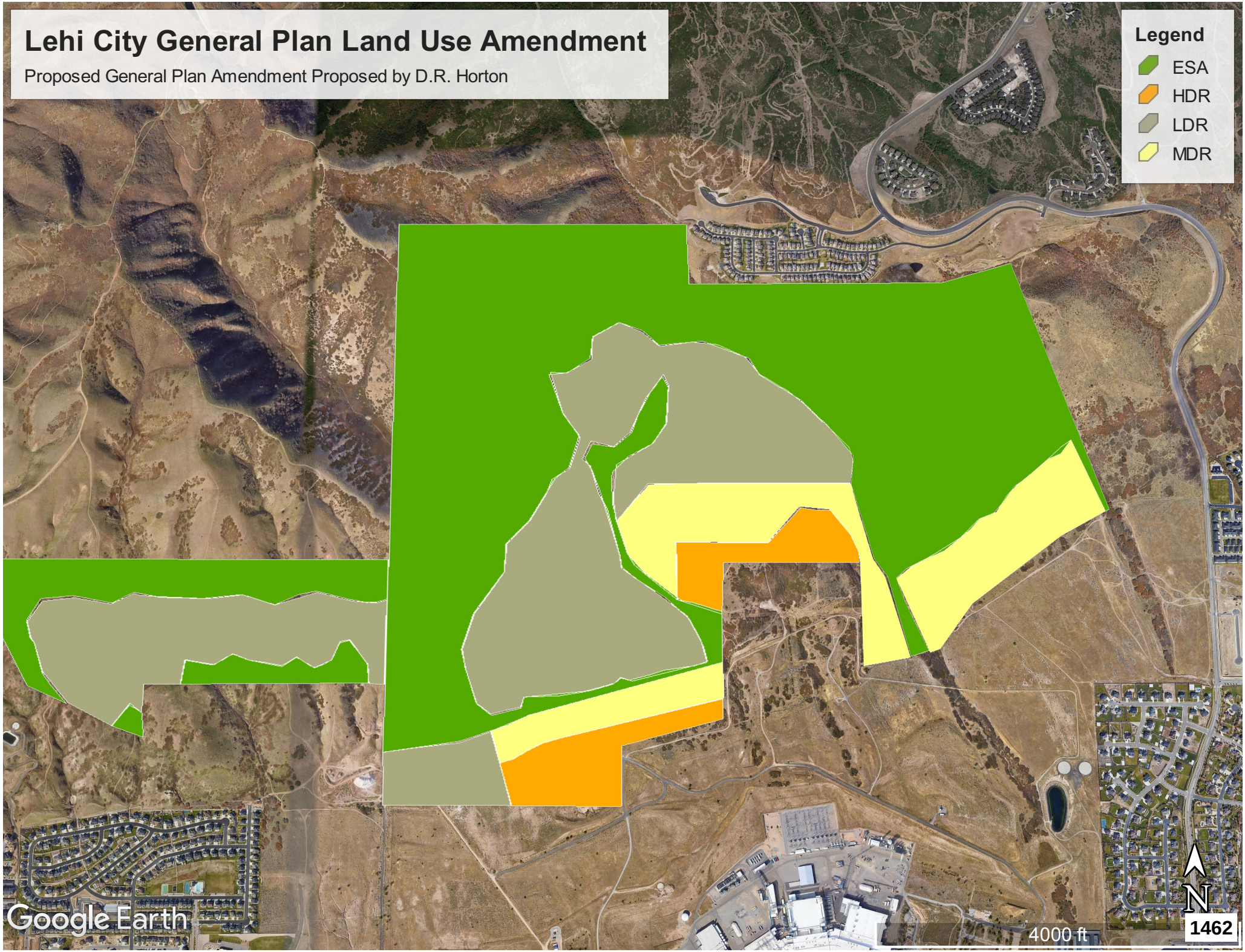
Contains: ±1,035.49 Acres
±45,106,123 Sq. Ft.

Exhibit B


Lehi City General Plan Land Use Amendment
Proposed General Plan Amendment Proposed by D.R. Horton
Legend
ESA
HDR
LDR
MDR

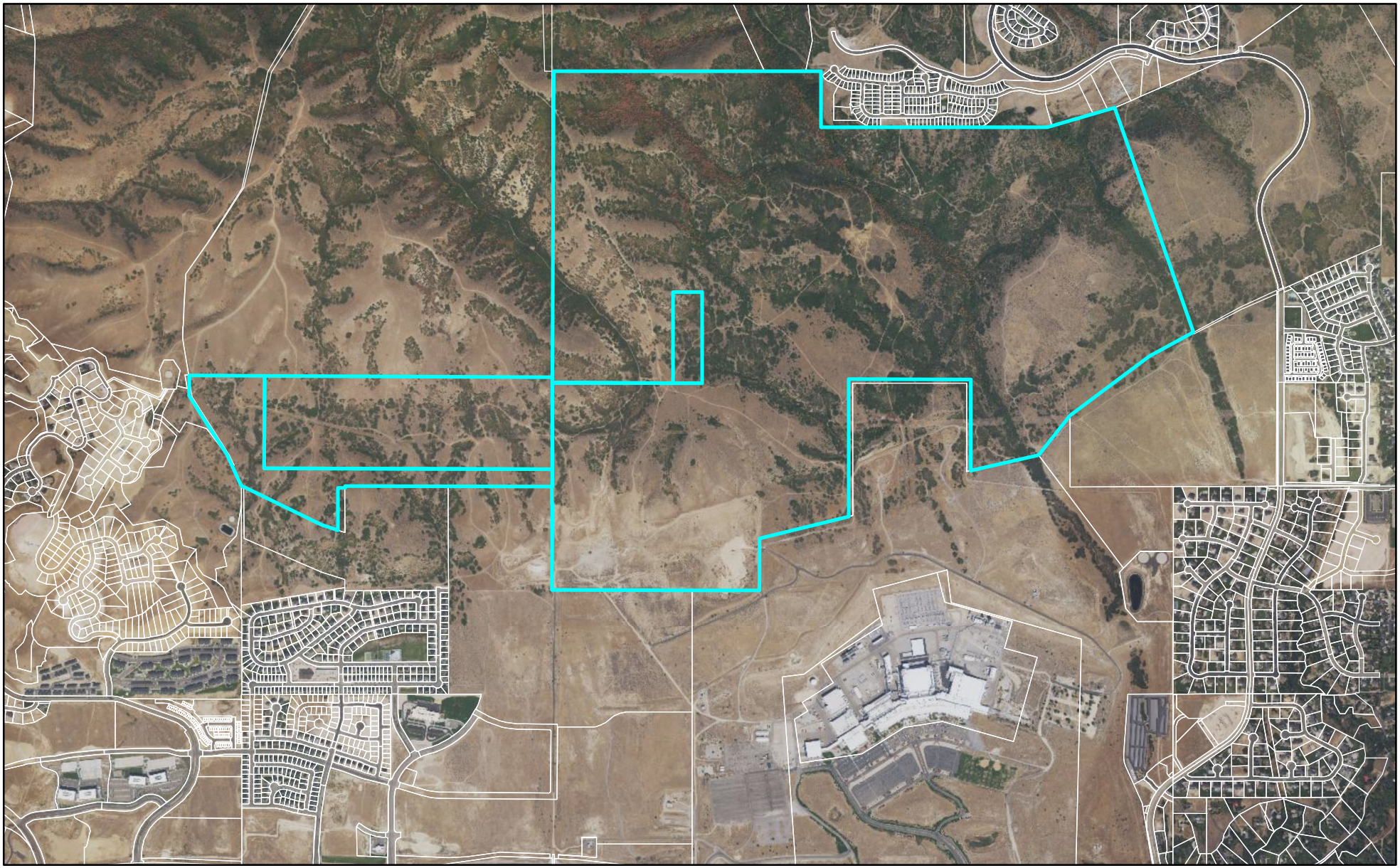
Lehi City General Plan Land Use Amendment

Proposed General Plan Amendment Proposed by D.R. Horton



Draper-Lehi Boundary Line Adjustment General Plan Designations

Aerial



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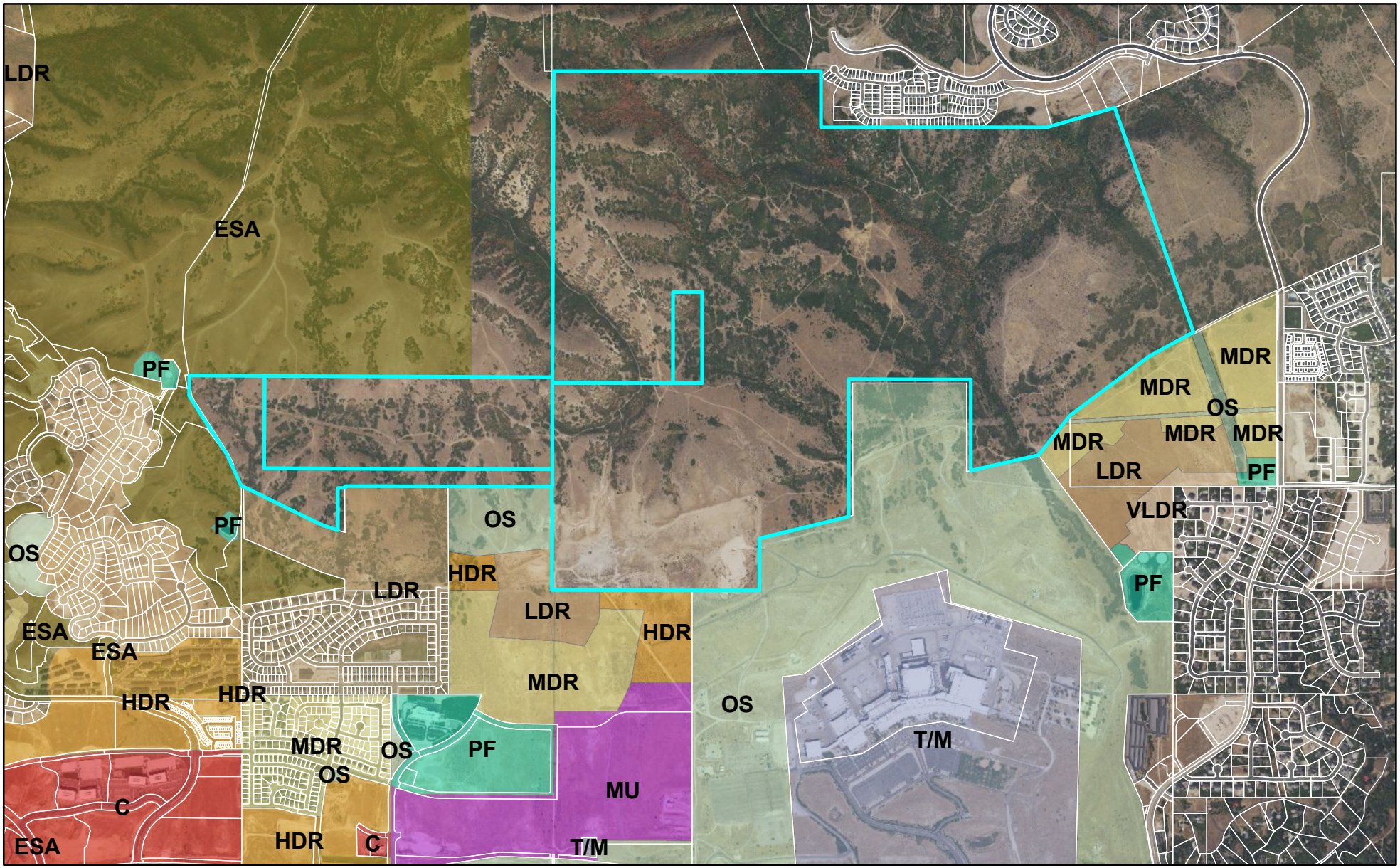
LEHI CITY

Draper-Lehi Boundary Line Adjustment General Plan Designations

General Plan



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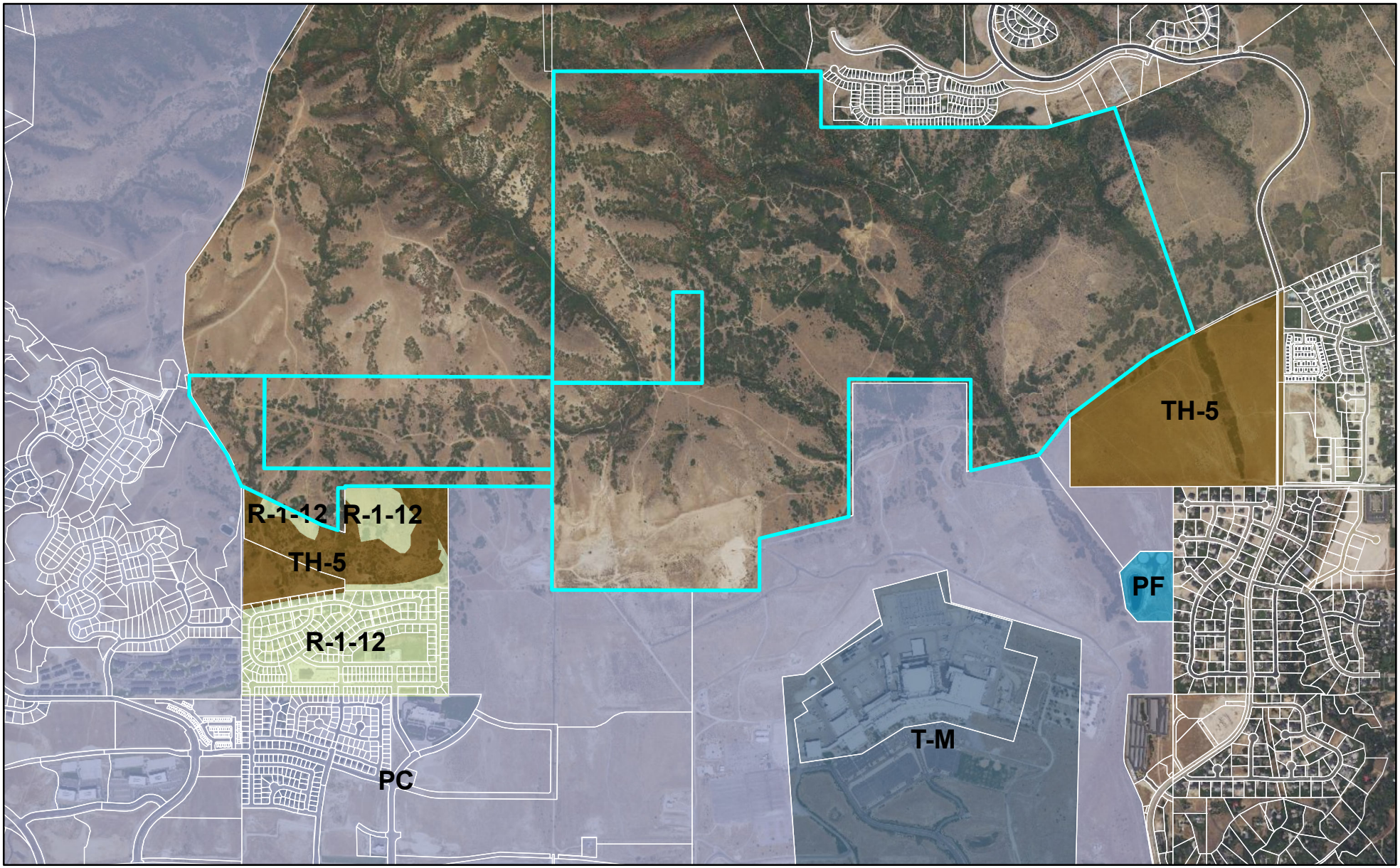
LEHI CITY

Draper-Lehi Boundary Line Adjustment General Plan Designations

Zoning



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LEHI CITY

Agenda Item No: 17

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Brittney Harris
Submitting Department: Planning Division
Item Type: Action Item
Agenda Section: Regular Agenda

Subject:
Consideration of the Skye Area Plan Second Amendment Concept Plan including 985 additional residential units in the Draper-Lehi Municipal Boundary Line Adjustment Area.

Suggested Action:

Attachments:

CC Staff Report Skye Area Plan 2nd Amendment Concept 08.23.22.docx

Skye Area Plan 2nd Amendment DRC 07.27.22.docx

Skye Area Plan 2nd Amendment Concept narrative.pdf

Skye Area Plan 2nd Amendment Concept.pdf

Skye AP 2nd Amendment Concept Aerial.pdf

Skye AP 2nd Amendment Concept GP.pdf

Skye AP 2nd Amendment Concept Zoning.pdf

DR Horton Concept.JPG

Skye Upper Slopes.JPG

SKYE AREA PLAN SECOND AMENDMENT CONCEPT

CITY COUNCIL REPORT

Applicant	DR Horton		
Meeting Date	August 4, 2022		
Requested Action/Purpose	Approval of a proposed area plan amendment concept		
Decision Type	Legislative		
Location	North of Texas Instruments		
Project Area	880 acres		
Existing Zoning	Proposed TH-5		
General Plan Land Use Designation	Proposed ESA, HDR, LDR, MDR		
Adjacent Zoning and Land Use	*North*	Draper	Maple Hollow at Suncrest Subdivision
	South	PC	Texas Instruments/ Proposed Skye Area Plan
	East	Draper	Hillside
	West	Draper	Hillside
Date of DRC Review	July 27, 2022		
Date of Planning Commission Review	August 4, 2022		
Assigned Planner	Brittney Harris		

REQUIRED ACTION

Planning Commission	Review and recommendation
City Council	Final Approval

APPLICABLE DEVELOPMENT CODE REGULATIONS

Section 11.010. Concept Plan – Applicability:
The Concept Plan gives the applicant, staff, Planning Commission and City Council an opportunity to discuss the project in the conceptual stage. The applicant can use the Concept Plan meeting to receive direction on project layout as well as discuss the procedure for approval, the specifications and requirements that may be required for layout of streets, drainage, water, sewerage, fire protection, and similar matters prior to the preparation of a more detailed preliminary subdivision plat.

REPORT ANALYSIS

The applicant requests approval of the proposed Skye Area Plan second amendment. This proposal indicates the proposed land uses and layout of the property currently proposed to come into Lehi City from Draper.

This concept plan, the proposed General Plan Land Use designations, and the Draper-Lehi Municipal Boundary Adjustment are all tied together. The applicant has expressed their desire to incorporate the property they own in the Draper-Lehi boundary adjustment into their Area Plan. This concept would be the first step in them amending the area plan to incorporate this area. If approved, the applicant will update the whole area plan to cover this additional acreage.

The applicant provided a narrative stating their use of 685 existing ERUs that were not included in their existing proposed Skye Area Plan. They also request 300 more ERUs in exchange for dedicating approximately 500 acres of open space to Lehi City. This open space would primarily be hillside and undevelopable. However, this open space does provide biking and hiking trails opportunities and preserves native open space.

The proposed layout of the plan includes townhomes and smaller lot single families along the southern edge and then increases to large estate lots. The proposed lots are shown on areas with less slope while the open space is mostly

shown on steep slope areas.

The applicant also shows two trailhead parks with access to the open space. Additional other private parks and green space are shown throughout the development.

This concept plan provides the basic layout that the applicant would like to pursue if approved. The details and ensuring it meets all Code requirements would come with the future area plan amendment and subdivisions. The City Council may wish to consider the use of the land and if the additional 300 units are worth the 500 acres of open space that would be dedicated to the City.

The DRC reviewed the proposed concept plan and had 15 comments including:

1. Additional water/PI storage facilities, booster stations, PRV vaults will be required for this area.
2. Additional trailhead locations should be planned for on edge of development for existing and future trails.
3. Recommend moving some of the estates to the south higher density areas, in order to preserve more useable open space that is not as steep.
4. Will need to provide a plan showing that bus routes can be provided to serve the area. Bus routes need to be 8% grade or less.
5. An additional 300 units may be considered only if the dedication of open space is made as stated in the narrative (a minimum of 500 acres of open space dedicated to Lehi City). This needs to be memorialized in a Development Agreement included with the Draper Boundary Line Adjustment
6. Recommend that more of the townhome density be moved down closer to where it would be more walkable/bikeable to the commercial areas, as well as reducing the need for emergency management in a urban/wildland interface area.
7. Recommend that more of the townhome density be moved down closer to where it would be more walkable/bikeable to the commercial areas, as well as reducing the need for emergency management in a urban/wildland interface area.
8. Conservation easement required for open space area to ensure perpetual preservation. This can be done in conjunction with the boundary adjustment agreement. A 50'-100' buffer area could be left to allow some flexibility with final development plans, similar to Hidden Canyon in Traverse Mountain.

POSSIBLE MOTIONS AND FINDINGS

The City Council may approve or deny the proposed concept plan. Any motion should include findings. Possible findings include:

1. The proposed concept is/is not a good layout for the topography of the site.
2. The proposed concept plan provides the benefit of 500 acres of open space dedicated to Lehi City.
3. The proposed concept is/is not consistent with the Lehi City Development Code.
4. The proposed concept does/ does not conform to the goals and policies of the General Plan.
5. Other findings based upon information presented at the public hearing.

PLANNING COMMISSION RECOMMENDATION

The Planning Commission reviewed the proposed area plan concept on August 4, 2022. The minutes and motion from that meeting have been uploaded separately.

Skye Area Plan Amendment 2
DRC Redline Comments

DR Horton- requests review of the concept plan for the Skye Area Plan Amendment 2 with 985 residential units located in the Draper-Lehi Municipal Boundary Adjustment Area.

DRC Members Present: Glade Kirkham, Garion Rowett, Greg Allred, Ryan Allred, Jacob Hernandez, Kim Struthers, Gary Smith, Ross Dinsdale, Trent Dyer
Representatives of the Applicant Present: Adam Loser and Ben Tuckett
Date of Plans Reviewed: 7/19/22
Time Start: 2:03pm
Time End: 2:22pm

DRC REDLINE COMMENTS:
Glade – Power:
1. Need routes for circuit get-aways, major primary looping and minor primary looping. Block lengths are an issue for power routing.
2. Re-work Power Area Plan
3. Larger Easement required for circuit get-aways.

Garion – Fire: No comments
Greg/Ryan – Water/Sewer:
4. Additional water/PI storage facilities, booster stations, PRV vaults will be required for this area.

Trent – Parks:
5. Additional trailhead locations should be planned for on edge of development for existing and future trails.
6. Recommend moving some of the estates to the south higher density areas, in order to preserve more useable open space that is not as steep.

Gary – Building/Inspections: No comments
Jacob – Public Works: No comments
Ross – Engineering:
7. Will need to provide a plan showing that bus routes can be provided to serve the area. Bus routes need to be 8% grade or less.
8. An additional 300 units may be considered only if the dedication of open space is made as stated in the narrative (a minimum of 500 acres of open space dedicated to Lehi City). This needs to be memorialized in a Development Agreement included with the Draper Boundary Line Adjustment

Kim – Planning:
9. Recommend that more of the townhome density be moved down closer to where it would be more walkable/bikeable to the commercial areas, as well as reducing the need for emergency management in a urban/wildland interface area.
10. I know this is concept level, but some of the townhome units won't work with driveways facing street corners. These rear-load towns should be flipped to face the street to the south and garages off the alley shown. On the townhomes in the upper section, are they rear load or front load? They seem very close together.
11. Block lengths are exceeded but will be reviewed at the time of preliminary for compliance. Any exception warranted to remove a street connection must still provide a bike/pedestrian connection. The required connectivity index is also likely not met with the number of cul-de-sacs shown. Considerations for exceptions should include utility looping, emergency access, and walkability/bikeability.
12. Cul-de-sacs should include bike/ped access points where feasible.
13. Is there a conceptual trail network (both paved and unpaved) that this concept plan proposes? It would be nice to see how it interconnects this area and with the updated area plan below.
14. Slope easements would need to be designated on the lots that have significant steep slopes/grades in the rear yards to ensure that mass grading, excessive retaining walls or other disturbance of the natural slopes can be prohibited.
15. Conservation easement required for open space area to ensure perpetual preservation. This can be done in conjunction with the boundary adjustment agreement. A 50'-100' buffer area could be left to allow some flexibility with final development plans, similar to Hidden Canyon in Traverse Mountain.

Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

THIS ITEM IS SCHEDULED FOR PLANNING COMMISSION ON AUGUST 4th

Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

D.R. Horton Narrative – Concept Plan Application

This narrative explains the history, current use and characteristics, as well as the intent and proposed use of the land associated with the concept plan attached. Please see the attached exhibits and application for additional details.

- **History –** This land has been owned by Micron for many years and for at least the past decade has not been used for anything. D.R. Horton purchased approximately 1,300 acres of land from Micron in March of 2021. At the time of purchase, the lower portion of the land (approximately 410 acres) had already been entitled with an approved area plan called the Micron Area Plan. However, the upper portion of the land (approximately 880 acres) was not part of the area plan and was currently within Draper City limits. D.R. Horton has most recently been working with Lehi City to amend the Micron Area Plan which affects the lower 440 acres of the property. D.R. Horton has also submitted a Municipal Boundary Line Adjustment Plat to both Lehi and Draper cities for approval to move the upper 880 acres of land (along with some adjacent property owners land as well). As part of the process of adjusting the city boundary lines, D.R. Horton is also seeking to amend Lehi's General Land Use Plan to include this new area and is also providing a concept plan for Lehi City's consideration.
- **Current Use -** There are no current structures on the land. Natural vegetation exists consisting of dry grasses and sage brush in most areas with some scrub oak and other greener types of vegetation in areas that get more water and/or have less sun exposure. Many areas of the land have slopes that exceed a 30% grade but there are also some open areas that are less than a 10% grade.
- **Proposed Use –** D.R. Horton is proposing to amend the area plan a second time to include all this upper portion of land once it is annexed into Lehi City. Therefore, we have provided a concept plan that includes the entire area plan to show the entire proposed "full build-out concept area plan. We have also included a concept that includes just the upper approximately 880 acres of land that we are proposing be added to the area plan.

As we developed the concept plan, we looked carefully at the topography and locations of existing trail systems, easements, and impacts on adjacent property owners. Here are some details and statistics that may clarify the proposed concept plan:

- The current area plan vests to D.R. Horton 2,436 total ERU's that are currently approved for our area plan. However, through the process of amending the current area plan, it was approved to place 1,751 of those ERU's in the lower approximately 440 acres of land and to then use the remaining vested 685 ERU's in the future portions of our property that we had anticipated to bring into the area plan later on.

- With the proposed concept plan, D.R. Horton is planning to build a total of 2,736 total ERU's. This will include using the remaining 685 ERU's that have already been vested and adding an additional 300 ERU's while also adding the additional approximately 880 acres of land into the area plan.
- While the current area plan includes providing approximately 92 acres of parks or open space within the area plan. This new concept will include dedicating to Lehi City an additional approximately 500 acres of open space that will include trailhead parks, premium Mt. biking and multi-use trails and other amenities as planned and mutually agreed upon by D.R. Horton and the City.
- D.R. Horton has planned this concept plan in such a way as to make the footprint of development in the upper area as small as possible. There are additional areas that are "developable" that we have left native in order to cause as little disturbance as possible and to dedicate as much land as possible to the city as public open space.

SKYE

Concept Plan II

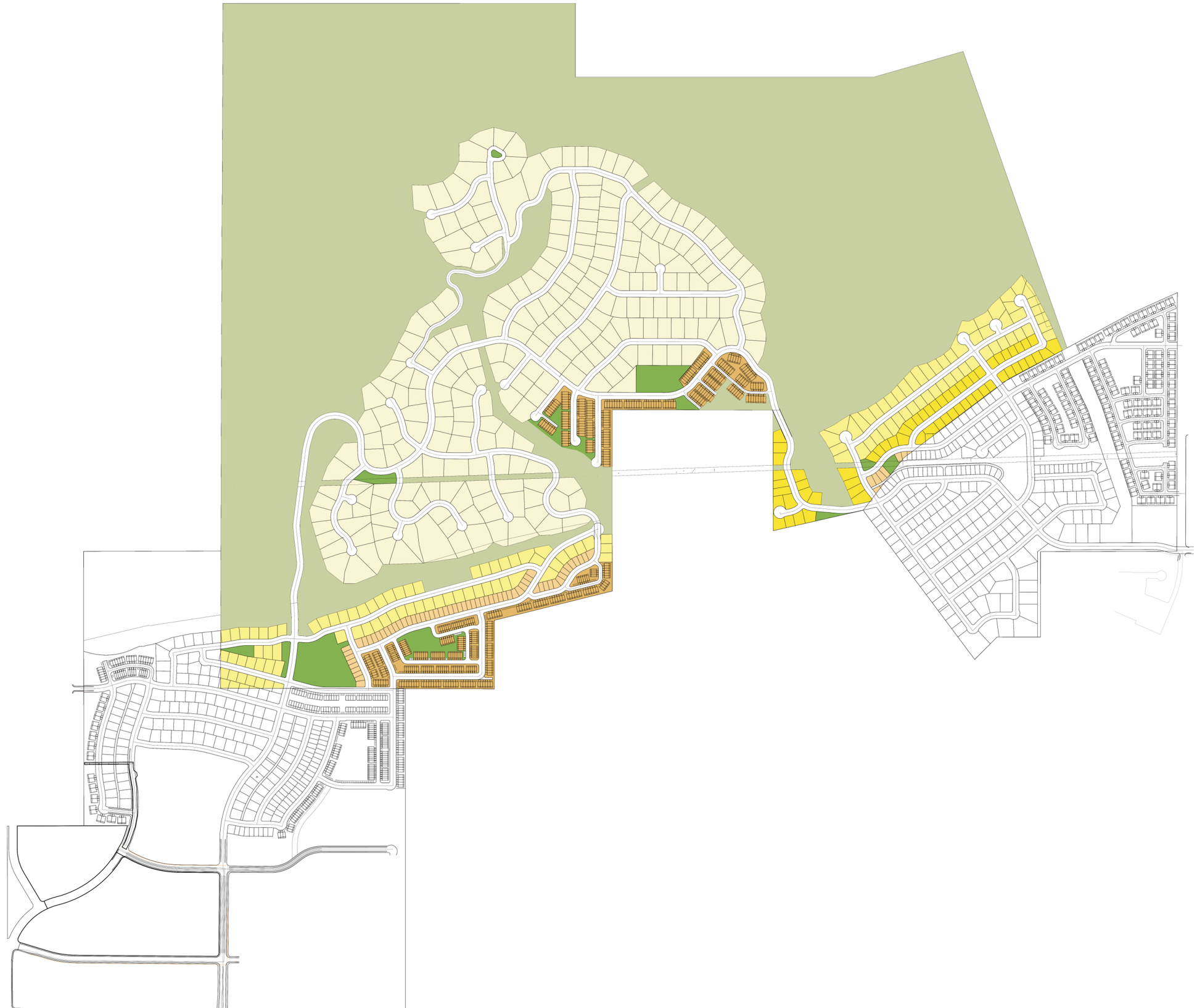
July 20, 2022

D·R·HORTON
America's Builder

SKYE

Concept Plan II

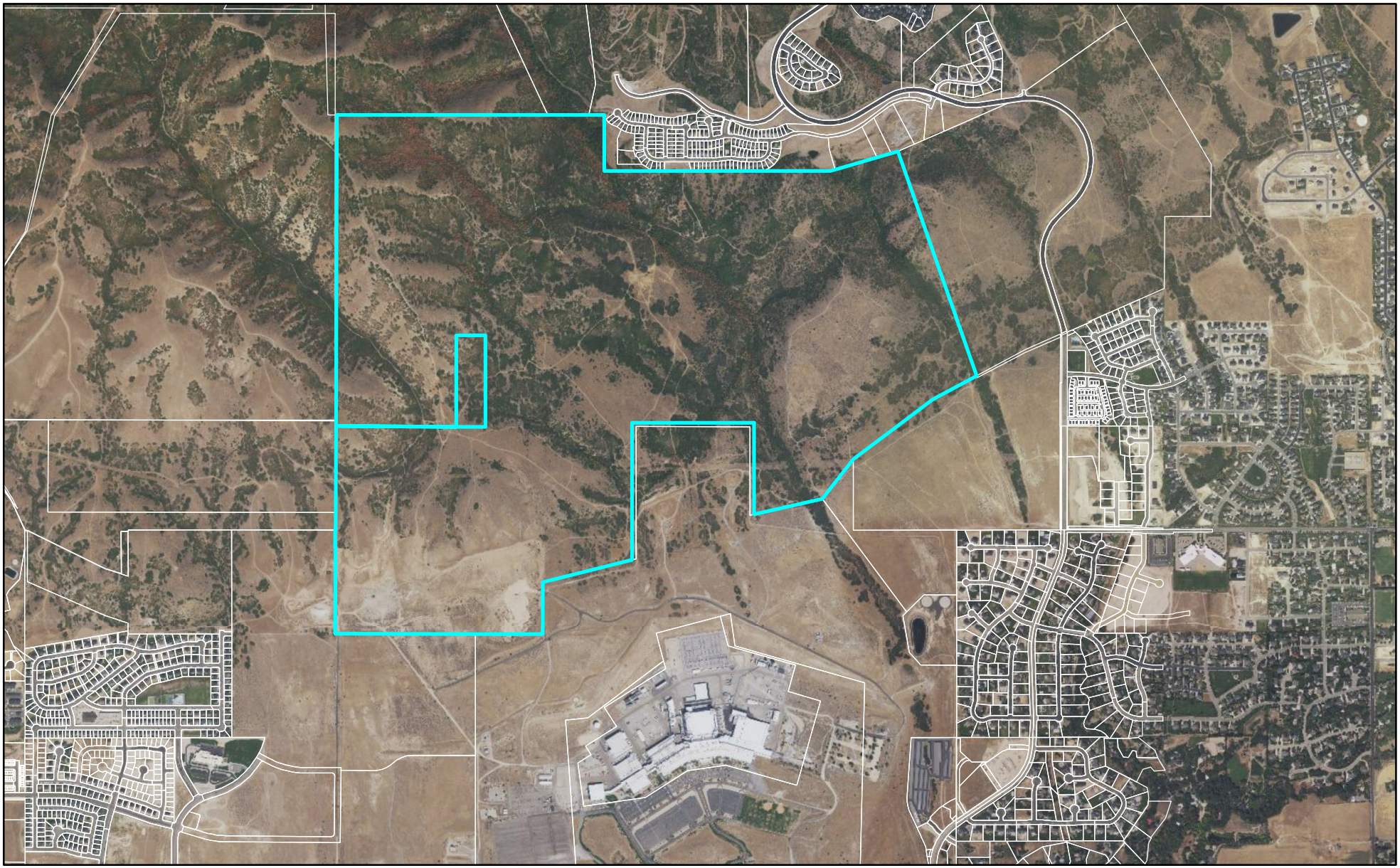
July 20, 2022



D·R·HORTON
America's Builder

Skye Area Plan 2nd Amendment Concept

Aerial



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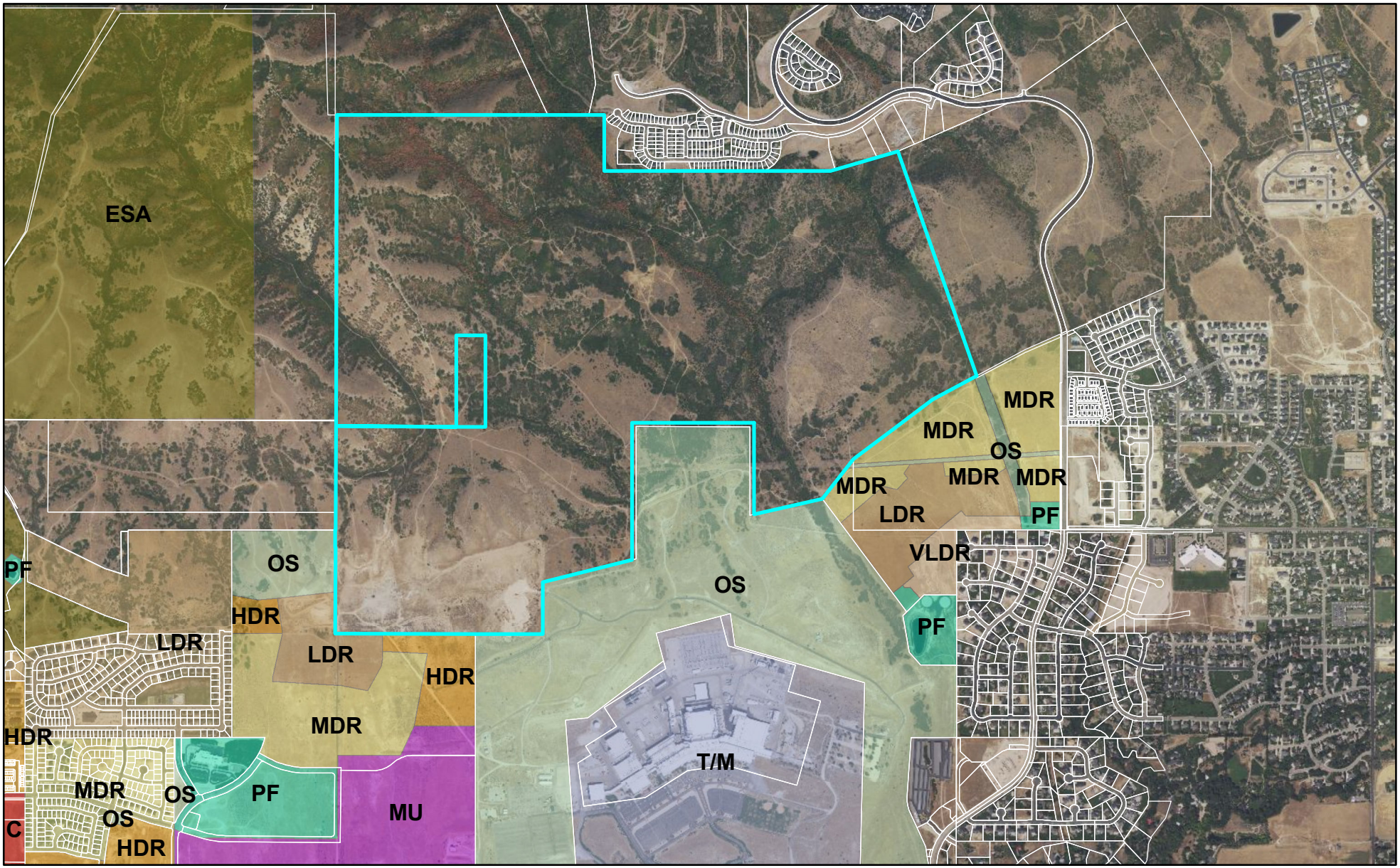
LEHI CITY

Skye Area Plan 2nd Amendment Concept

General Plan



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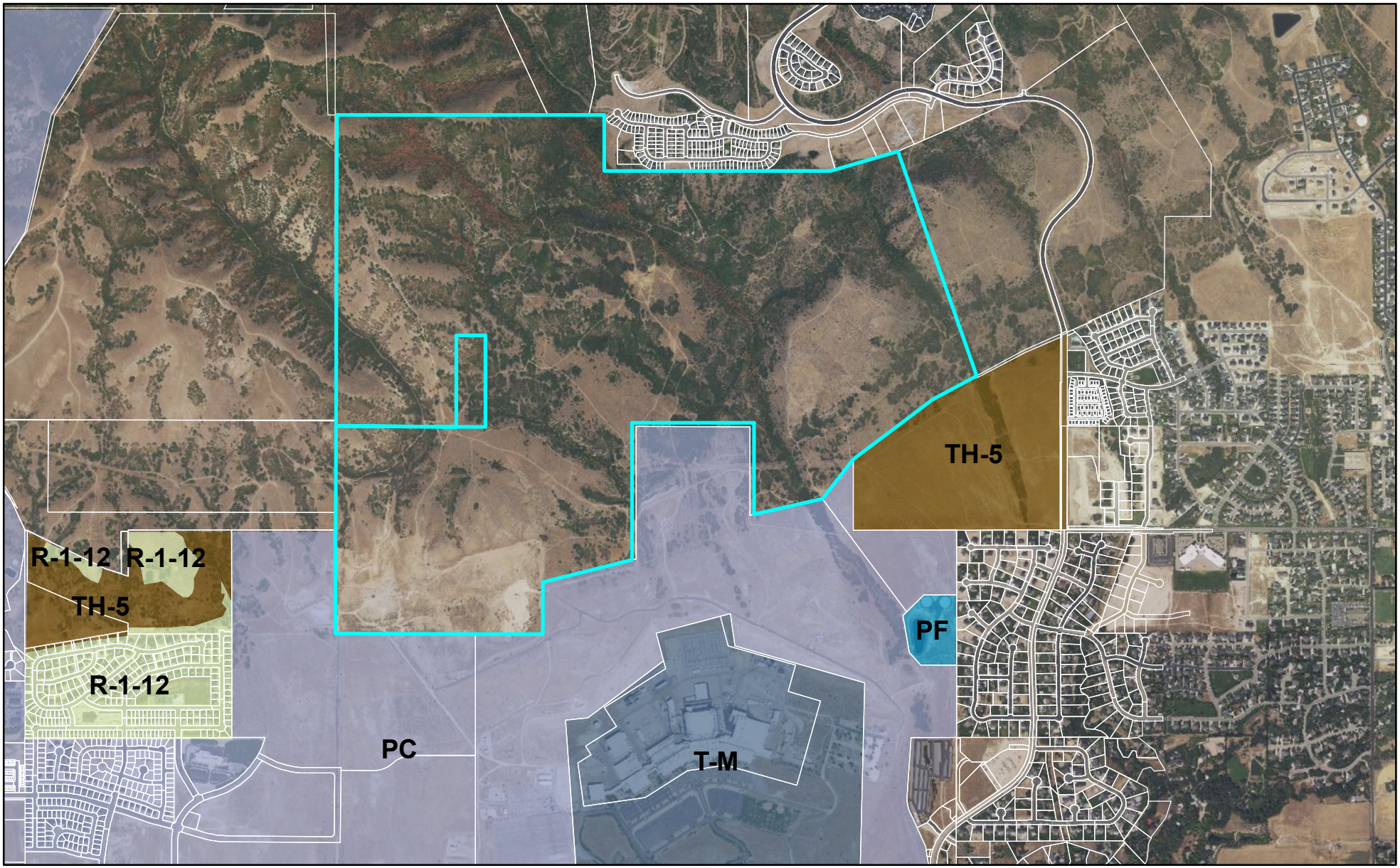
LEHI CITY

Skye Area Plan 2nd Amendment Concept

Zoning



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LEHI CITY

South Maple Hollow Trail Head
Imagery Date: 8/28/2021 40°28'17.58" N 111°48'20.17" W elev

SLOPE TABLE

NUMBER	MINIMUM SLOPE	MAXIMUM SLOPE	AREA	COLOR
1	0.01%	10.00%	405 ACRES	
2	10.01%	30.00%	476 ACRES	
3	30.01%	1329990.01%	398 ACRES	

Agenda Item No: 18

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Brittney Harris
Submitting Department: Planning Division
Item Type: Ordinance
Agenda Section: Regular Agenda

Subject:
Consideration of Ordinance #48-2022, the Kelly zone change, from RA-1 (residential agriculture) to NC (neighborhood commercial) on 1.08-acres located at 3055 North 1200 West.

Suggested Action:

Attachments:

CC Staff Report Kelly Zone Change 08.23.22.docx

Kelly Zone Change- RA-1 to NC DRC 07.20.22.docx

Ord 48-2022.docx

Kelly Zone Change narrative.pdf

Kelly Zone Change.pdf

Aerial Map.pdf

General Plan Map.pdf

Zoning Map.pdf

KELLY ZONE CHANGE

CITY COUNCIL REPORT

Applicant	Lee and Mary Kelly		
Meeting Date	August 23, 2022		
Requested Action/Purpose	Approval of a proposed zone change		
Decision Type	Legislative		
Location	3055 North 1200 West		
Acreage	1.08-acres		
Existing Zoning	Residential Agriculture (RA-1)		
Existing General Plan Land Use Designation	Neighborhood Commercial (NC)		
Proposed Zoning Designation	Neighborhood Commercial (NC)		
Existing Land Use	Single Family Home		
Adjacent Zoning and Land Use	*North*	NC	Undeveloped
	South	TH-5/R-2	Approved Lehi Terrace Subdivision
	East	RA-1	Single Family Homes
	West	R-3	Single Family Homes
Date of DRC Review	July 20, 2022		
Date of Planning Commission Review	August 4, 2022		
Assigned Planner	Brittney Harris		

REQUIRED ACTION

Planning Commission	Review and recommendation
City Council	Final approval

APPLICABLE DEVELOPMENT CODE REGULATIONS

From Section 04.060 Criteria for Approval, of the Lehi City Development Code, the Planning Commission should consider the following factors, among others, when reviewing a zone amendment:

1. The effect of the proposed amendment on the character of the surrounding area;
2. Consistency with the goals and policies of the General Plan;
3. Consistency and compatibility of the proposed zone with the General Plan land uses of nearby and adjoining properties;
4. The suitability of the properties for the uses requested and their suitability for the existing uses identified by the General Plan;
5. Whether a change in the uses allowed for the affected properties will unduly affect the uses, or proposed uses for nearby and adjoining properties;
6. The gain to the public health, safety, and welfare from the existing classification to the proposed amendment; and
7. The overall community benefit of the proposed amendment.

APPLICABLE GENERAL PLAN GOALS AND POLICIES

NEIGHBORHOOD COMMERCIAL (NC) The Neighborhood Commercial (NC) classification is to allow for smaller-scale retail and service-oriented businesses and can provide basic goods and services to residential areas. Developments within this zone should be designed for a sensitive transition between commercial and residential uses.

PROPERTY HISTORY

July 22, 2004	Property came into Lehi as part of the SE Garrick Addition
January 25, 2005	City Council approved the Fox Run PUD Subdivision
June 14, 2022	City Council approved the Kelly General Plan Amendment to Neighborhood Commercial

REPORT ANALYSIS

The applicant requests approval of the Kelly Zone Change from Residential Agriculture (RA-1) to Neighborhood Commercial (NC). This proposal would change the designation on 1.08-acres located at 3055 North 1200 West.

The Transportation Master Plan shows 1200 West as a major arterial road. Commercial uses work better than residential ones next to busy roads for safety reasons. The proposed zone change to Neighborhood Commercial would allow a small-scale commercial use along this busy road. The parcels north of this parcel also have commercial designations transitioning from commercial to neighborhood commercial.

The proposed zoning also matched the General Plan Land Use Designation approved earlier this year.

The applicant did not provide a concept plan with either this Zone Change application or the previous General Plan application. They have indicated that they do not have a specific use in mind but think this area works well for a neighborhood commercial use. The eventual use of the property would be limited by what the Neighborhood Commercial zone allows for uses as well as the building footprint restrictions.

The DRC reviewed the proposed zone change and only has one informational comment. This zone change will not require water dedication as neighborhood commercial has lower water requirements then the existing RA-1 zoning.

POSSIBLE MOTIONS AND FINDINGS

The City Council may approve or deny the proposed zone change. Any motion should include findings. Possible findings include:

1. The proposed zone change will allow commercial uses along an arterial road.
2. The proposed zone change will/will not impact the character of the surrounding neighborhood.
3. The proposed zone change is/is not consistent with the goals and policies of the General Plan.
4. The proposed zone change is/is not consistent and compatible with the General Plan land uses of nearby and adjoining properties.
5. The overall community benefit of the proposed amendment.

PLANNING COMMISSION RECOMMENDATION

The Planning Commission reviewed the proposed zone change on August 4, 2022. The minutes and motion from that meeting have been uploaded separately.

Kelly Zone Change
DRC Redline Comments

Lee and Mary Kelly- request review of the Kelly Zone Change, 1.08-acres located at 3055 North 1200 West changing the zoning from RA-1 to NC.

DRC Members Present: Glade Kirkham, Garion Rowett, Greg Allred, Matthew Meier, Kim Struthers, Gary Smith, Ross Dinsdale, Trent Dyer, Luke Seegmiller
Representatives of the Applicant Present: Mary Kelly
Date of Plans Reviewed: 7/11/22
Time Start: 1:07pm
Time End: 1:11pm

DRC REDLINE COMMENTS:
Glade – Power: No comments
Garion – Fire: No comments
Greg – Water/Sewer: No comments
Trent – Parks: No comments
Gary – Building/Inspections: No comments
Matt – Public Works: No comments
Ross – Engineering: No comments
Luke- Traffic: No comments
Kim – Planning: No comments
Water dedication for this property has already been provided with the annexation, and no additional water would be needed for this zone change.

Effect of the proposed amendment on the existing goals, objectives, and policies of the Lehi City General Plan.

From the Lehi City General Plan Land Use Element the following goals and policies related to development should be considered:

1. Maximize opportunities to create an overall pattern of planned and orderly development with a system of land uses, adequately and efficiently served by a balanced and energy-efficient system of transportation, and community services that are sensitive to the natural physical qualities of the area.

2. Provide diverse economic and employment opportunities and encourage multiple scales of commercial development to serve the needs of the region, the community, and individual neighborhoods.

3. Promote variety in commercial spaces, densities, and locations.

THIS ITEM WILL BE SCHEDULED FOR PLANNING COMMISSION ON AUGUST 4th

Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

ORDINANCE NO: 48-2022

AN ORDINANCE APPROVING A ZONE DISTRICT DESIGNATION AMENDMENT AND ZONING DISTRICT MAP AMENDMENT LOCATED AT 3055 NORTH 1200 WEST

WHEREAS, Lee and Mary Kelly, owners of property located at 3055 North 1200 West and further described by the legal description attached as Exhibit "A", has applied for an amendment to the Zone District and Zoning District Map; and

WHEREAS, the applicant seeks to have said parcel designated as Neighborhood Commercial (NC); and

WHEREAS, following a public hearing on August 4, 2022, the Lehi City Planning Commission reviewed the proposed Zoning District Designation and Zoning District Map amendment and forwarded it to the City Council to decide on the proposed amendment; and

WHEREAS, on August 23, 2022, the City Council held a duly noticed meeting to receive public comment and ascertain the facts regarding this matter, which facts and comments are found in the hearing record and which include the staff report, minutes from the Planning Commission meeting of December 9, 2021; and

WHEREAS, after considering the facts and comments presented to the Municipal Council, the Council finds: (i) the request for a Zone District Designation amendment and Zoning District amendment is consistent with the Lehi City General Plan Land Use Map adopted by the Lehi City Council on January 25, 2022 (and as subsequently amended); and (ii) such action furthers the health, safety and welfare of the citizens of Lehi.

NOW, THEREFORE, BE IT ORDAINED by the City Council of Lehi City, Utah as follows:

PART I:

The Zone District Designation and the Zoning District Map of the property described on Exhibit "A" are hereby amended to Neighborhood Commercial (NC).

PART II:

A. If a provision of this Ordinance 48 -2022 conflicts with a provision of a previously adopted ordinance concerning the same title, chapter, and/or section number amended herein, the

provision in this Ordinance shall prevail.

B. This ordinance and its various section, clauses and paragraphs are hereby declared to be severable. If any part, sentence, clause or phrase is adjudged to be unconstitutional or invalid, the remainder shall not be affected thereby.

C. The City Council hereby directs that the official copy of the Lehi City Code be updated to reflect the provisions enacted by this Ordinance.

D. This Ordinance shall take effect immediately after being posted or published as required by law.

Approved and Adopted by the City Council of Lehi City this 23rd day of August 2022.

ATTEST

_____ _____

Mark Johnson, Mayor Teisha Wilson, City Recorder

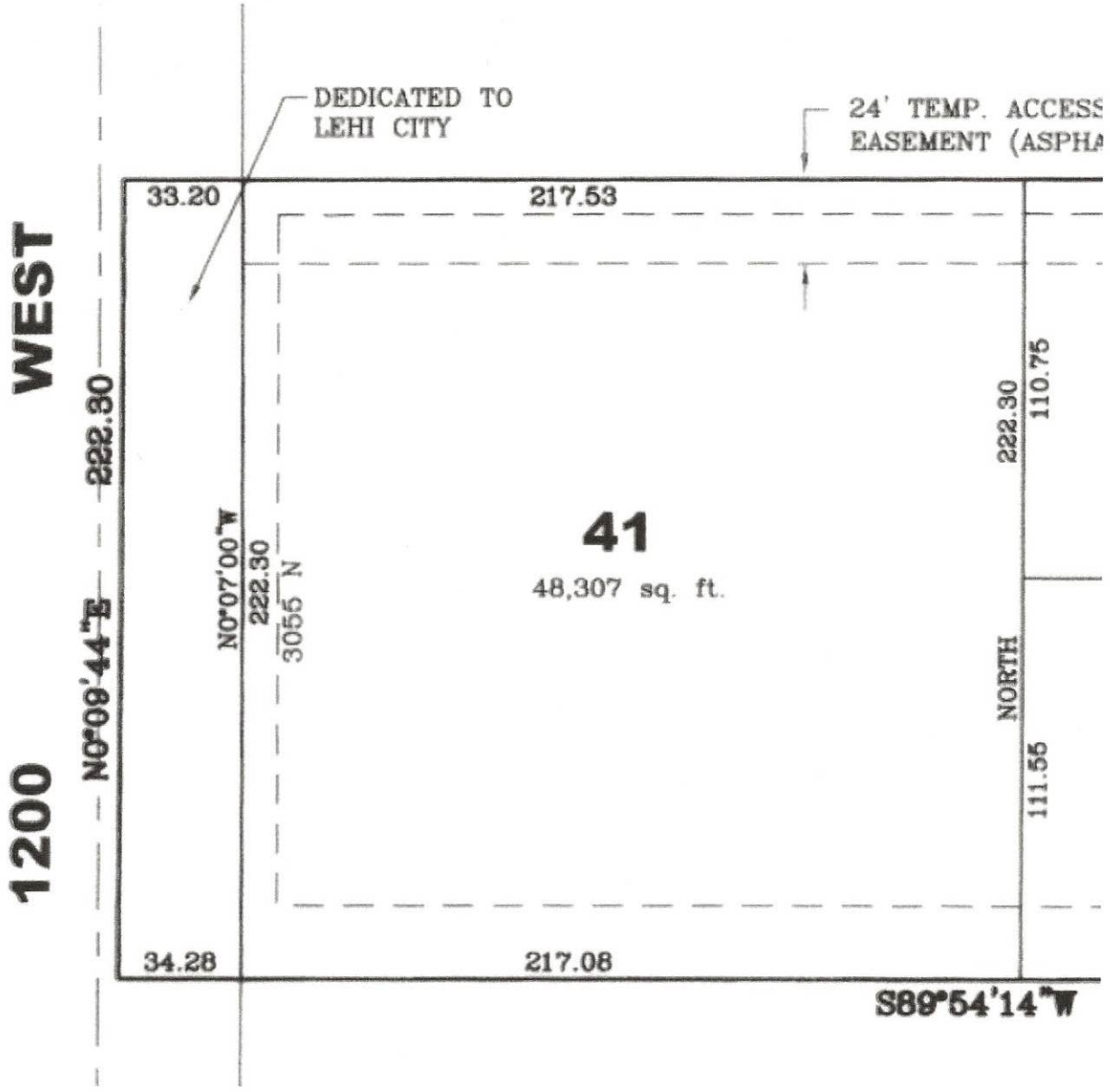
EXHIBIT “A”

KELLY ZONE CHANGE PROPERTY LEGAL DESCRIPTION

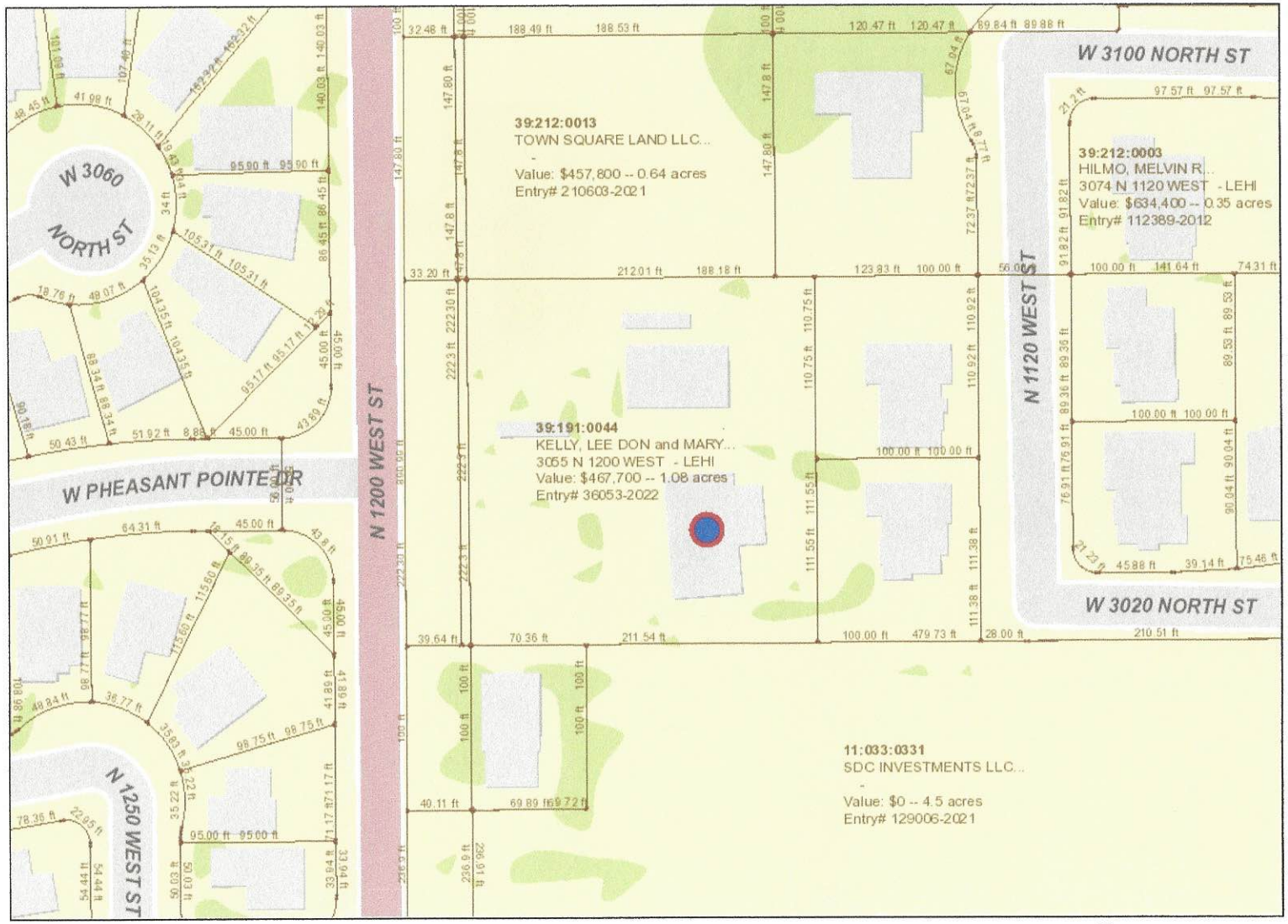
PART LOT 41, PLAT B, FOX RUN PUD SUB DESCRIBED AS FOLLOWS; COM S 0 DEG 0' 12" W 644.23 FT & S 89 DEG 59' 48" E 36.9 FT FR W 1/4 COR. SEC. 32, T4S, R1E, SLB&M.; N 89 DEG 54' 26" E 212.01 FT; S 110.75 FT; S 111.55 FT; S 89 DEG 54' 26" W 211.54 FT; N 0 DEG 7' 1" W 222.3 FT TO BEG. AREA 1.080 AC.

Reason for Rezoning property at 3055 N 1200 W, Lehi, UT 80443

Lee and Mary Kelly are requesting to Rezone their property at 3055 N 1200 W from RA-1 to NC. We believe this fits into Lehi City's plan for properties sitting East of 1200 W that face the street. Lehi City has set this Precedence. The property that adjoins the Kelly property to the North is NC, and one property that adjoins to the South is NC. The other property to the South was NC, but is now R-2.



Legal Description: PART LOT41, PLAT B, FOX RUN PUD SUB DESCRIBED AS FALLOWS; COM S 0 DEG 0' 12" W 644.23 FT & S 89 DEG 59' 48" E 36.9 FT FR W 1/4 COR. SEC.32, T4S, R1E, SLB&M.; N 89 DEG 54' 26" E 212.01 FT; S 110.75 FT; S 111.55 FT; S 89 DEG 54' 26" W 211.54 FT; N 0 DEG 7; 1" W 222.3 FT TO BEG. AREA 1.080 AC.



Utah County Parcel Map

3055 n 1200 w Lehi

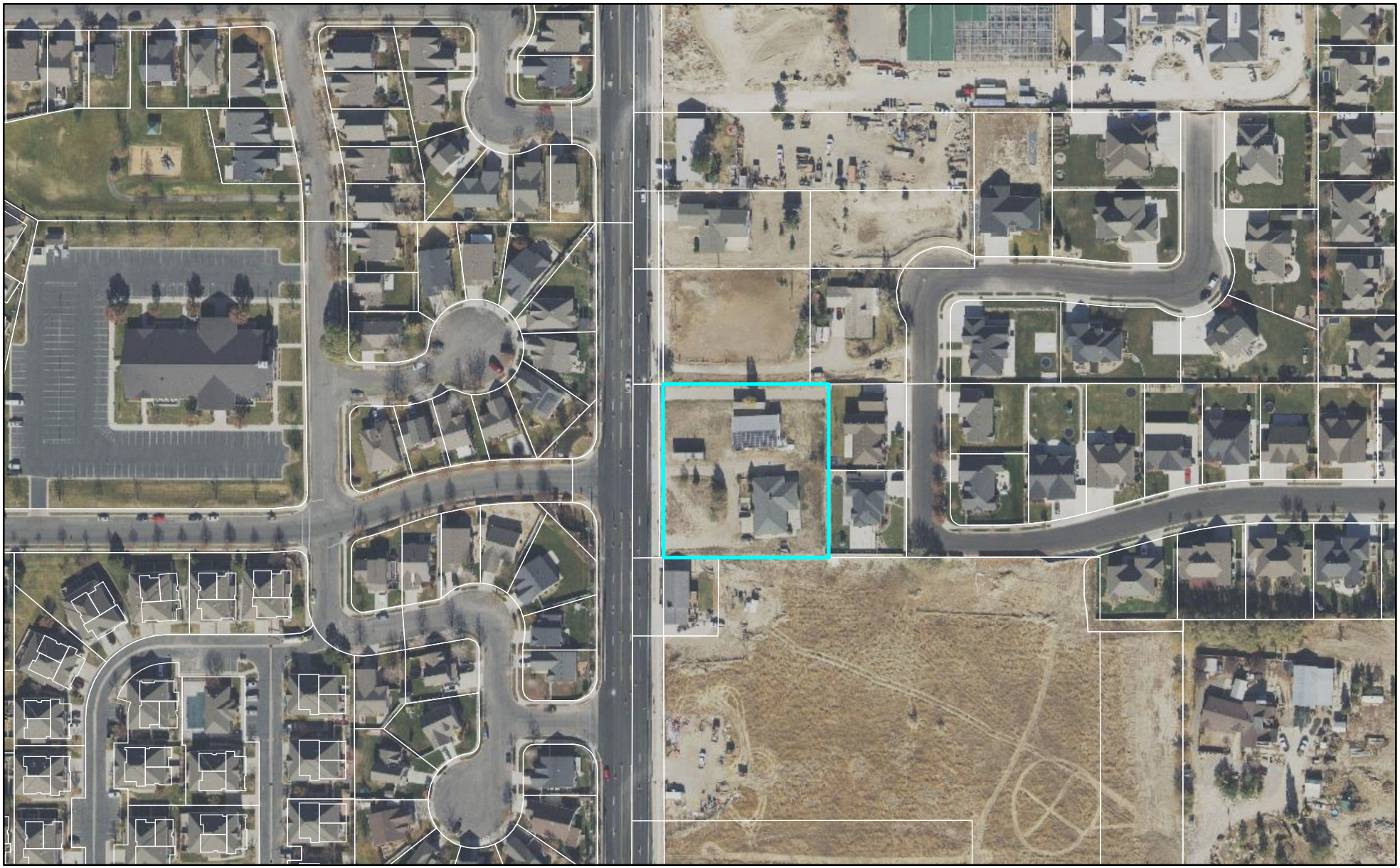
This cadastral map is generated from Utah County Recorder data. It is for reference only and no liability is assumed for any inaccuracies, incorrect data or variations with an actual survey

Date: 4/26/2022

N

Kelly Zone Change

Aerial

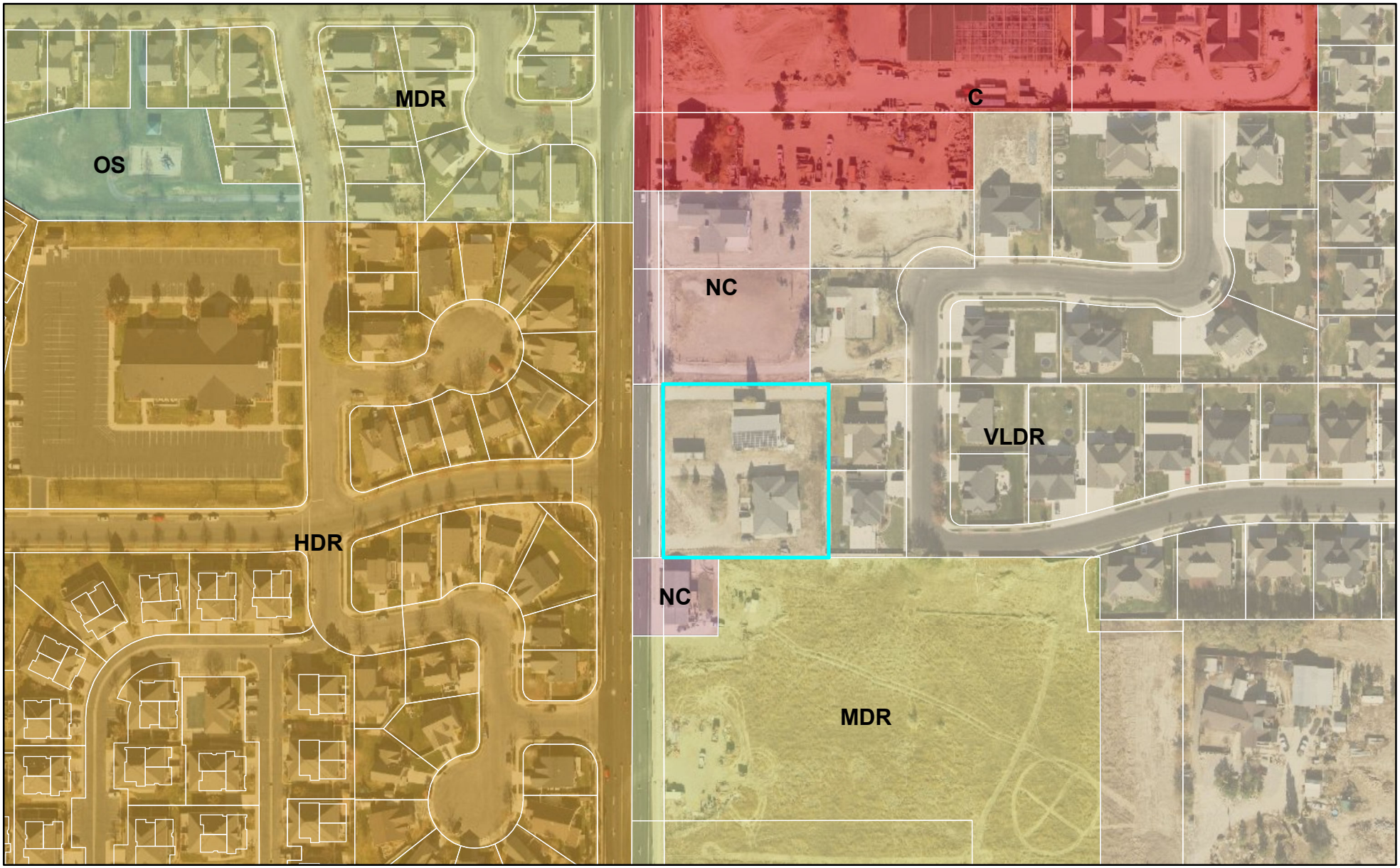


0 210 420 Feet

LEHI CITY

Kelly Zone Change

General Plan



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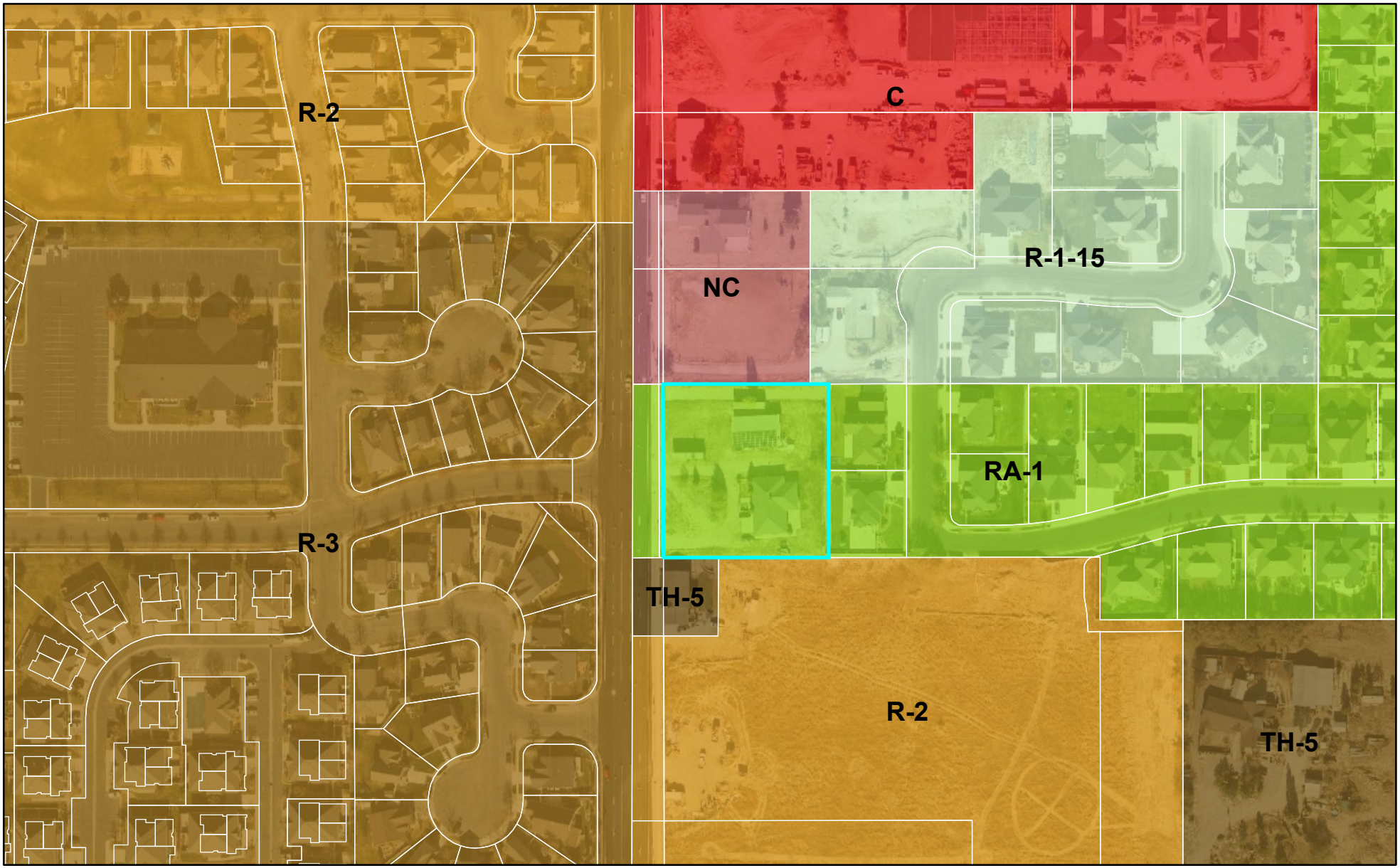
LEHI CITY

Kelly Zone Change

Zoning



0 210 420 Feet

LEHI CITY

Agenda Item No: 19

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Brittney Harris
Submitting Department: Planning Division
Item Type: Ordinance
Agenda Section: Regular Agenda

Subject:
Consideration of Ordinance #45-2022, a Development Code Amendment to Table 37.080 and Chapter 16 PRD updating the parking requirements for multi-family projects.

Suggested Action:

Attachments:

CC Staff Report Multi-Family Parking Dev Code Amendment 08.23.22.docx

Multi-Family Parking Code DRC 07.06.22.docx

Ord 45-2022.docx

Ch16PRD 6.30.22.pdf

TBL37.080 Parking Condo Tandem 06.30.22.pdf

Engage Lehi Survey Responses.pdf

MULTI-FAMILY PARKING DEVELOPMENT CODE AMENDMENTS

CITY COUNCIL REPORT

Applicant	Lehi City
Meeting Date	August 23, 2022
Requested Action/Purpose	Approval of proposed amendments to the Lehi City Development Code
Decision Type	Legislative
Date of DRC Review	July 6, 2022
Date of Planning Commission Review	July 26, 2022
REQUIRED ACTION	
Planning Commission	Review and recommendation
City Council	Final approval

APPLICABLE DEVELOPMENT CODE REGULATIONS

Section 04.060. Criteria for Approval.
No amendment to this Code, or the Zoning District Map(s), may be recommended for approval by the Commission nor approved by the City Council unless such amendment or conditions thereto are consistent with the General Plan. In considering a Code amendment, or Zoning District Map(s) amendment, the applicant shall identify, and the City Staff, DRC, Commission, and the City Council may consider the following factors, among others:

1. The effect of the proposed amendment on the character of the surrounding area;
2. Consistency with the goals and policies of the General Plan.
3. Consistency and Compatibility of the proposed zone with the General Plan land uses of nearby and adjoining properties.
4. The suitability of the properties for the uses requested and their suitability for the existing uses identified by the General Plan;
5. Whether a change in the uses allowed for the affected properties will unduly affect the uses, or proposed uses for nearby and adjoining properties;
6. The gain to the public health, safety and welfare from the existing classification to the proposed amendment; and
7. The overall community benefit of the proposed amendment.

REPORT ANALYSIS

The applicant requests approval of proposed changes to the Multi-Family Parking requirements in the Development Code. The changes intend to ensure multi-family projects provide an adequate supply of parking and in close proximity to all units.

The proposed changes are after complaints from people living on the west side of Lehi in the higher density areas. The residents expressed that they do not have enough parking close to where they live. In response Planning Staff created a survey on Engage Lehi. The data collected from the survey guided these proposed amendments.

Staff does not want to encourage an oversupply of parking. However, an undersupply of parking can also create a lower quality of life for those unable to find parking and also for all drivers through the area who have to deal with less safe driving conditions as people park next to corners or other site obscuring locations.

The proposed changes include changes to Table 37.080. These changes include removing “guest” parking from the requirement and just requiring additional parking. This makes it clear that it can be used for residents as well as guests. The amendment also proposes removing the ability for condominiums to count tandem parking (one car parked behind

the other) as counting towards the required amount. Condos currently are the only ones that allow tandem parking and from the survey most people do not think that it should count. This change of removing tandem parking for condos will increase the amount of required parking the most. This correlates with observation by Staff that areas around condos have the most parking issues.

The other big change to the parking table includes establishing a proximity requirement. The proposal states that the additional parking must be located within a designated number of feet from the unit. Again, this number was informed by the Engage Lehi survey and comes from the assumption that people want to park close to their front door. If off-street parking is not available within close proximity to the front door, people may decide to park illegally in bike lanes or on private streets too narrow to provide parking and safe driving conditions for cars.

Chapter 16 on PRD's was included to add a parking requirement for single family homes with less of 50 feet of frontage requiring off-street parking as well. Currently Chapter 17 PUDs includes a parking requirement of one stall per six dwelling units. The DRC recommended that it change to one per three dwelling units for both PRDs and PUDs.

The DRC reviewed the proposed amendments and had 3 redline comments:

1. For Chapter 16 and 17, change 1 per every 6 homes to 1 per every 3 units for guest parking requirements. Update parking table to reflect the 1 per every 3 units.
2. Include parking requirements for clubhouses.
3. Change parking distance requirements for townhomes from 300 feet to 250 feet.

Please consider including all DRC comments in your motion.

POSSIBLE MOTIONS AND FINDINGS

The City Council may approve or deny the proposed amendments to the Lehi City Development Code. Any motion should include findings. Possible findings include:

1. The proposed Development Code Amendment will/will not improve parking in high density areas of the City.
2. The proposed Development Code Amendment reflects/does not reflect the input given by citizens on Engage Lehi.
3. The proposed Development Code amendment is/is not in conformance with the purposes, intent, and provisions of the General Plan and its various elements.
4. Additional findings based upon information presented during the public hearing.

PLANNING COMMISSION RECOMMENDATION

The Planning Commission reviewed the proposed Development Code Amendment on July 26, 2022. The minutes and motion from that meeting have been uploaded separately.

Multi-Family Parking Code
DRC Redline Comments

Lehi City Code amendment for multi-family parking.

DRC Members Present: Glade Kirkham, Garion Rowett, Greg Allred, Matthew Meier, Kim Struthers, Gary Smith, Ross Dinsdale, Trent Dyer, Luke Seegmiller
Representatives of the Applicant Present: Planning Department
Date of Plans Reviewed: 7/1/22
Time Start: 3:31 PM
Time End:

DRC REDLINE COMMENTS:
Glade – Power: No comments
Garion – Fire: No comments
Greg – Water/Sewer: No comments
Trent – Parks: No comments
Gary – Building/Inspections: No comments
Matt – Public Works: No comments
Ross – Engineering:

1. For Chapter 16 and 17, change 1 per every 6 homes to 1 per every 3 units for guest parking requirements. Update parking table to reflect the 1 per every 3 units.
2. Include parking requirements for clubhouses.
3. Change parking distance requirements for townhomes from 300 feet to 250 feet.

Luke- Traffic: No comments
Kim – Planning: No comments

THIS ITEM WILL BE SCHEDULED FOR PLANNING COMMISSION ON JULY 28TH

Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

ORDINANCE NO: 45-2022

AN ORDINANCE AMENDING THE LEHI CITY DEVELOPMENT CODE, CHAPTERS 16, 17 AND TABLE 37.080, PARKING REQUIREMENTS FOR MULTIFAMILY AND SMALL LOT SINGLE FAMILY

WHEREAS, it has become necessary to amend Chapter 16 and Table 37.080 of the Lehi City Development Code, eliminate tandem parking from counting towards required parking; and

WHEREAS, this amendment seeks to require proximity requirements for multi- family and small lot single family developments; and

WHEREAS, following a public hearing on July 26, 2022, the Lehi City Planning Commission reviewed the proposed revisions and forwarded a positive recommendation to the City Council; and

WHEREAS, on August 23, 2022, the City Council held a duly noticed meeting to receive public comment and ascertain the facts regarding this matter, which facts and comments are found in the hearing record and which include the staff report, minutes from the Planning Commission meeting of July 26, 2022, and the positive recommendation of the Planning Commission; and,

WHEREAS, after considering the facts and comments presented to the Municipal Council, the Council finds: Chapters 16, 17 and Table 37.080 of the Lehi City Development Code should be amended; and such action furthers the health, safety, and welfare of the citizens of Lehi.

NOW, THEREFORE, BE IT ORDAINED by the City Council of Lehi City, Utah as follows:

PART I:

Chapters 16, 17 and Table 37.080 of the Lehi City Development Code are hereby amended.

PART II:

A. If a provision of this Ordinance 45 -2022 conflicts with a provision of a previously adopted ordinance concerning the same title, chapter, and/or section number amended herein, the provision in this Ordinance shall prevail.

B. This ordinance and its various sections, clauses and paragraphs are hereby declared to be severable. If any part, sentence, clause or phrase is adjudged to be unconstitutional or invalid, the remainder shall not be affected thereby.

C. The City Council hereby directs that the official copy of the Lehi City Code be

updated to reflect the provisions enacted by this Ordinance.

D. This Ordinance shall take effect immediately after being posted or published as required by law.

Approved and Adopted by the City Council of Lehi City this 23rd day of August, 2022.

ATTEST

_____ _____

Mark Johnson, Mayor Teisha Wilson, City Recorder

CHAPTER 16

PLANNED RESIDENTIAL DEVELOPMENT (PRD)

(Amended 08/14/18; 07/28/20)

Section 16.010. Purpose.
Section 16.020. Description.
Section 16.030. Allowed Uses
Section 16.040. Requirements for PRD Projects.
Section 16.050. Combined PRD and Subdivision applications Permitted.
Section 16.060. Approval Process.
Section 16.070. Application Requirements.
Section 16.080. Approval Criteria.
Section 16.090. Provision of Services.
Section 16.100. Certificates of Occupancy.
Section 16.110. Maintenance of Common Areas.
Section 16.120. Phased Development Procedures.
Section 16.130. Amendments to Development Plan.

Section. 16.010. Purpose.

A Planned Residential Development (PRD) may be allowed at the discretion of the Planning Commission and City Council in any agricultural or residential district by complying with the provisions of this Chapter. The Planned Residential Development provisions of this Code are an overlay zoning district provision to allow design flexibility in the development of lands within the City, the placement of buildings on lots and development areas, and to encourage the realization of several potential public benefits. The intent is to:

A. provide flexible development options where the standard lot pattern is not practical or desirable due to physical constraints;

B. provide flexibility in architectural design, placement of buildings, use of open space and outdoor living areas, provision of circulation facilities and parking, and related site and design considerations;

C. promote the preservation of open and natural areas;

D. allow for common open areas within a development area while still achieving the density of the base zone;

E. support reductions in development costs and ongoing maintenance costs;

F. provide for efficient use of public services and improvements;

G. encourage and preserve opportunities for energy efficient development; and

H. promote an attractive and safe living environment.

Section 16.020. Description.

A Planned Residential Development (PRD) is a site plan or subdivision area containing houses and dwelling units with some or all of the lots reduced below the minimum lot sizes required by the zoning district, but where the overall project and site area meets the density standard of the zoning district. These projects require that the planning for lots and the locations of houses and dwellings be achieved in a coordinated, functional and unified manner. Because the exact location of each house or dwelling is determined during the review and approval phases, greater flexibility in development standards is possible while assuring that the character of the underlying district is maintained.

Section 16.030. Allowed Uses.

Planned Residential Developments allow all of the uses that are allowed in the underlying zone by right, or as a conditional use, with appropriate conditions.

Section 16.040. Requirements for Planned Residential Development Projects.

(Amended 4/11/00; 08/13/02; 12/08/15; 09/08/20; 02/08/22; 02/22/22)

A. Qualifying Districts**.** Planned Residential Developments may be allowed at the discretion of the Planning Commission and City Council in all agricultural and residential districts within the City with a minimum area requirement of ten acres.

B. Procedure for Approval**.** Planned Residential Developments are allowed subject to the requirements of this Chapter and the site plan and subdivision requirements, review, and procedures as contained in this Code.

C. Density**.** The overall project may not exceed the density allowed by the underlying zoning district plus any additional density bonus allowed at the discretion of the Planning Commission and City Council.

D. Calculation of Density. The number of dwelling units allowed in a Planned Residential Development is to be calculated in the following manner:

1. The following areas shall be subtracted from the gross site area to determine net usable area:
   (a) areas of steep slopes, wetlands, or areas below the high water level of Utah Lake as defined in Section 12.060-K of this Code;
   (b) the area of any perennial channels, measured from top of bank to top of bank of the flow channel;
   (c) existing public streets, any areas of additional right-of-way required to comply with the Lehi City Master Transportation Plan; and
   (d) areas to be set aside for public buildings or institutional uses including churches and schools.

2. Net usable site area shall be multiplied by the density allowed by the underlying zoning district as established in Table 05-040-A to identify the maximum number of allowed units.

3. Density for areas in the 100-year flood plain as shown on the FEMA Flood Insurance Rate Maps shall be as determined by the Planning Commission and City Council on a case-by-case basis at the time of Concept Plan approval.

4. If the Planned Residential Development is located in more than one zoning district, the total allowed number of units shall be calculated by adding the number of units allowed by each zoning district. However, the dwelling units may be placed without regard to district boundaries, provided the total units do not exceed that allowed by the underlying zoning districts.

E. Density Bonus Amenities: The list below represents items for which a density bonus may be granted subject to Planning Commission and City Council approval. Other items not included in this list may be considered for a density bonus on a case by case basis.

1. Active Recreation: master planned trails, swimming pools, sports courts, tennis courts, pickleball courts, splash pads, clubhouse, trails, pedestrian bridges, and other similar amenities beyond those required.

2. Pedestrian and Bicycle Enhancements: raised planters, bulb-outs or curb extensions, pedestrian plazas, additional bike lanes or facilities not already required.

3. Additional Open Space: beyond the required 20 percent.

4. Improvements to Master Planned Infrastructure: master planned roads, utilities, trails, property for civic buildings, or other similar items.

F. Lot Sizes**.** There shall be no minimum lot size requirement of area, width, or depth. However, lot sizes shall be adequate to promote compatibility with adjoining activities on and off the development site as determined by the Planning Commission and City Council.

G. Housing Types Allowed**.** Allowed housing types shall be consistent with the types of housing allowed by the underlying zoning district. The proposed locations for all houses and dwelling units, or building envelopes for all structures, shall be shown on the plat or site plan in enough detail so that compliance with the required development standards is assured.

H. Building Setbacks**.** Along the perimeter of the development site or project area, all development shall meet the building setback standards of the underlying zoning district. Within the site, building setbacks and separation shall be established as part of the preliminary development plan approval by the reviewing and approval bodies of the City sufficient to promote a functional, attractive, and compatible development. Setbacks may be reduced but shall be sufficient to allow for the installation of all required public utilities and required driveway lengths in Table 05.030A.

I. Height. The height limit of the underlying zoning district shall apply.

J. Required Open Space. At least 20% of the total Planned Residential Development site shall be devoted to open space as defined in Chapter 39 of this code, or payment in lieu of open space provided. Additional density may be authorized for the provision of open space greater than the required 20% minimum. Open Space proposed for dedication may be received by the City at the discretion of the City Council. All open space shall be in common ownership, city ownership, or held in a form acceptable to the City to guarantee public access.

K. Open Space Design.

1. The required open space shall be landscaped with sod and irrigation sprinklers and a minimum 25% of the proposed open space shall be water wise landscaping as defined in Chapter 39 of this Code.

2. Trees shall be provided within the open space at a rate of ten trees per acre of provided open space. Deciduous trees shall be a minimum 2" caliper and coniferous trees shall be a minimum six feet in height.

3. Detention and retention basins shall not be counted toward meeting the minimum open space requirement. Open space design and location issues shall be kept separate and independent of drainage issues.

4. Area(s) within existing power transmission easements included in the required open space shall be given half credit toward open space acreage.

5. Area(s)in existing wetlands may be given full credit toward open space acreage requirement. A minimum of 10% of the proposed open space shall be designated as useable open space, which may include, but is not limited to, boardwalks, trails, playgrounds, and parks.

L. Location of Open Space. The location of open space conserved through clustered residential development shall be consistent with the policies contained in the General Plan Parks, Open Space, and Recreational Facilities Element. Required open space areas shall be contiguous, not a collection of remnants, and the majority of residential lots or units within the PRD shall abut the open space. Yard areas within lots shall not be counted toward

M. Parking. Developments shall provide adequate parking based on the requirements of Table 37.080. In addition to those requirements, developments with single-family detached units on lots with less than 50' of frontage shall provide guest parking at a rate of one space for every six dwelling units.

Section 16.050. Combined Planned Residential Development and Subdivision Applications Permitted.

A subdivision plat may be approved concurrently with the approval of the Planned Residential Development. To do so, the applicant must request preliminary plat approval concurrently with the Planned Residential Development approval. The combined Planned Residential Development and subdivision application shall be subject to the review and appeal procedures and the subdivision procedures and requirements of this Code.

Section 16.060. Approval Process.

Planned Residential Developments (PRDs) are to be reviewed in a three-step process: Concept Plan, Preliminary Plat, and Final Plat.

A. Concept Plan. The Concept Plan gives the applicant, staff, Planning Commission, and City Council an opportunity to discuss the project in the conceptual stage. The applicant can use the Concept Plan meetings to receive direction on project layout as well as discuss the procedure for approval, the specifications and requirements that may be required for the layout of streets, drainage, water, sewerage, fire protection, and similar matters prior to the preparation of a more detailed preliminary subdivision plat. Overall density of the proposed PRD will be discussed as part of the Concept Plan; however, the total density of the PRD shall be established as part of the preliminary plat approval. Sections 11.010 – 11.040 of the Development Code identify the requirements for Concept Plan.

B. Preliminary Plat. The Preliminary Plat examines items such as density, including the number, type, and location of all dwelling units and other associated structures, parking, impact on surrounding areas, adequacy of services, project amenities, and plan for service improvements, consistent with the preliminary subdivision requirements of this Code. Preliminary approval shall only be granted when there is a reasonable certainty that the Planned Residential Development will fulfill all requirements of this Code for subdivision approval. The preliminary application requirements for a Planned Residential Development are those identified for a preliminary subdivision plat as identified in Section 11.070.

C. Final Plat. Review of the final plat is an administrative and technical matter. The applicant shall submit the detailed and technical information necessary to demonstrate that all City standards, requirements, and conditions have been met. Approval shall only be granted if the final plat is in conformance with the preliminary approval and the requirements of the City for final subdivision plat approval as identified in Section 11.120 have been met.

Section 16.070 Application Requirements.
(Amended. 1/13/04)
Applications for preliminary and final plat review and approval shall contain all information required by the City for subdivision approval as required in Chapter 11, as well as the following:

A. A statement of how the purpose and intent of this Chapter will be achieved by the proposed Planned Residential Development (PRD). The statement shall include sketches or illustrations of the proposed character of the development, including architecture of buildings and a description of how the development will relate to surrounding land uses. The statement shall also include a description of existing neighborhood features and neighborhood and community amenities to be provided by the development.

B. A summary report identifying the different land uses, including the amount of land for housing, open areas, streets, and parking; the number and type of housing units; and a statement of how necessary services will be provided.

Section 16.080 Approval Criteria.
The preliminary plat can be approved if the review and approval body finds that all of the following approval criteria have met:

A. The plat fulfills the purposes for Planned Residential Developments;

B. The plat meets all the requirements of this Chapter and all other applicable Chapters, particularly the development standards as contained within this Code;

C. There is a certainty that the applicable development standards and service standards will be met;

D. Adequate public facilities exist or can be provided to serve the proposed Planned Residential Development; and

E. The proposed Planned Residential Development provides greater amenities for residents of the City and efficiency in the provision of City services than would be achieved by a conventional development pattern.

Section 16.090. Provision of Services.
(Amended 1/13/04)
It is the responsibility of the applicant to provide all service facilities necessary for the functioning of the Planned Residential Development consistent with the requirements generally imposed on subdivision or site plan approvals. All services shall be provided at no cost to the public.

Section 16.100. Certificates of Occupancy.
Certificates of occupancy will not be issued unless all improvements and conditions of approval have been fulfilled to the satisfaction of the City Engineer and Chief Building Official, or the applicant has filed a guarantee with the City to ensure completion and warranty of all required improvements and conditions.

Section 16.110. Maintenance of Common Areas.
Unless dedicated and accepted by the City, an enforceable maintenance agreement for any common-owned areas shall be created and recorded. The agreement shall be approved by the City Attorney to assure that the City's interests are maintained and protected.

Section 16.120. Phased Development Procedures.
An applicant may submit a preliminary subdivision plat or preliminary site plan for the entire Planned Residential Development area that proposes phased final subdivision plats or phased final site plans. However, dedication of open space as required by Section 16.040(I) shall be required for the entire Planned Residential Development at the time of final subdivision approval of the first phase of the Planned Residential Development area.

Section 16.130. Amendments to the Development Plan.
Applicants may be granted revisions to approved preliminary or final Planned Residential Development plans. Requests for revisions shall be submitted in writing to the City. Changes and amendments to approved preliminary and final Planned Residential Development plans shall be processed following the same procedure as the original review and approval unless they are determined to meet the standards for a Minor Revision as identified in Section 14.020 of this Code.

TABLE 37.080
TABLE OF OFF-STREET PARKING REQUIREMENTS
(Amended 12/12/00; 05/08/01; 10/25/05; 12/14/10; 01/13/15; 01/26/16; 08/09/16; 06/09/20)

USE	PARKING SPACES REQUIRED
RESIDENTIAL USES	
Single-Family Dwelling	2 stalls per dwelling unit, ~~(~~not in tandem configuration~~)~~, and both stalls must be ~~to be~~ within a fully enclosed garage. Lots with less than 50' of frontage shall provide additional off-street parking stall(s) at a rate of one space for every six dwelling units.
Two-Family Dwelling (see Sec. 12.130 B)	2 stalls per dwelling unit, ~~t (~~not in tandem configuration~~)~~. 1 stall per unit to be within a fully enclosed garage.
Three-Family Dwelling (see Sec. 12.130 B)	2 stalls per dwelling unit, ~~(~~not in tandem configuration~~)~~. 1 stall per unit to be within a fully enclosed garage.
Four-Family Dwelling (see Sec. 12.130 B)	2 stalls per dwelling unit, ~~(~~not in tandem configuration~~)~~. 1 stall per unit to be within a fully enclosed garage.
Multi-Family Dwellings – One bedroom or less (>4 dwelling units) (see Sec. 12.130 B)	1 stall per dwelling unit ~~+~~ which must be within an enclosed garage or parking structure. 1 ~~guest~~ additional parking stall per 3 dwelling units. All additional off-street parking must be within 300 feet of the assigned units.~~. 1 stall per unit to be within a fully enclosed garage or parking structure.~~
Multi-Family Dwellings – Two or more Bedrooms (>4 dwelling units) (see Sec. 12.130 B)	2 stalls per dwelling unit, ~~(~~not in tandem configuration, one of which must be within an enclosed garage or parking structure. ~~) +~~ 1 additional ~~guest~~ parking stall per 3 dwelling units. All additional off-street parking must be within 300 feet of the assigned units. ~~1 stall per unit must be within an enclosed garage or parking structure.~~
Townhouses (see Sec. 12.130 B)	2 stalls per dwelling unit, ~~(~~not in tandem configuration, one of which must be within a fully enclosed garage or underground parking structure.~~)~~ 1 additional ~~+ 1 guest~~ parking space per 3 dwelling units if unit is adjacent to on street parking. 1 additional parking space per 2.5 dwelling units if unit is not adjacent to on street parking. All additional off street parking must be within 300 feet of the assigned units.~~. 1 space per unit to be within a fully enclosed garage or underground parking structure.~~

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USE	PARKING SPACES REQUIRED
Condominiums (see Sec. 12.130 B)	2 stalls per dwelling unit, not in tandem configuration, one of which must be within a fully enclosed garage or underground parking structure. 1 additional parking space per 3 dwelling units if unit is adjacent to on street parking. 1 additional parking space per 2 dwelling units if unit is not adjacent to on street parking. ~~a)~~ All additional off street parking must be within 200 feet of the assigned units. ~~2 stalls per dwelling unit (not in tandem configuration) + 1 guest parking space per 3 dwelling units. 1 space per unit to be within a fully enclosed garage or underground parking structure; OR~~ ~~b) 1 car garage and single 20' driveway + visitor parking at 0.75 stalls per unit~~
Manufactured Home	2 stalls per dwelling unit. ~~(~~not in tandem configuration.~~)~~
Group Homes	1 stall per each 4 residents plus 1 for each 2 employees during regular hours.
Nursing Home	1 stall for each 4 patient beds plus 1 for each employee during regular hours.
Assisted Living Facility	1 stall for each 2.25 patient beds.
Retirement Home/Center	1 stall for every 1.5 sleeping unit plus 1 for each employee during regular hours.
PUBLIC/CIVIC USES	
Churches	1 stall for every 4 seats in the assembly area.
Civic/Public Buildings/Public Facilities/Museums	As approved by the Planning Commission.
Elementary Schools	2 ½ stalls per Classroom.
Junior High Schools	3 stalls per Classroom.
High Schools	1 stall per Staff member, plus 10% of Staff parking for Visitors, plus spaces for 40% of student population at capacity or current enrollment whichever is greater.
Parks and Playgrounds	As approved by the Planning Commission.
Open Space, Trails and Greenways	As approved by the Planning Commission.
NON RESIDENTIAL/OTHER USES	
Athletic Instruction, including Dance, Gymnastics, and Martial Arts	1 stall per each 300 square feet of gross floor area.

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USE	PARKING SPACES REQUIRED
Automobile Sales	1 stall per each 500 square feet of gross showroom area plus 1 space per employee in addition to inventory stalls.
Automobile Service and Repair	4 stalls per service bay.
Bed And Breakfast Inn	1 stall per each sleeping unit plus 1 for each employee during regular hours.
Commercial Recreational Facility – Without tournament seating	1 stall per each 500 square feet of gross floor area.
Commercial Recreational Facility – With tournament seating	1 stall per each 500 square feet of gross floor area plus 1 stall per each 3 seats at maximum capacity.
Corporate Offices, Professional Offices, Business Offices and Financial Institutions	1 stall for each 300 square feet of gross floor area.
Day-care (in home)	2 stalls.
Day-care (commercial)	1 stall per each 300 square feet of gross floor area.
Funeral Homes	20 stalls or 1 stall for each 30 square feet in all assembly areas.
Hospitals	1 stall for each two patient beds plus 1 space for each employee during regular working hours.
Hospitals – Small Animal	1 stall for each 300 square feet of gross floor area.
Hotels/Motels	1 stall for each sleeping unit plus 1 space for each employee during regular working hours.
Manufacturing, Industrial, Wholesale establishments	1 stall for each person employed during regular working hours and adequate spaces for all company owned vehicles and visitors.
Medical Clinics	1 space for each 250 square feet of gross floor area.
~~Museums, Civic Uses~~	~~As approved by the Planning Commission~~
Night Club	1 stall for each 300 square feet of gross floor area.
Personal Services	1 stall for each 300 square feet of gross floor area.
Plant Nursery with Outdoor Display	10 stalls per acre.
Research and Development Facilities/Medical or Dental Laboratory	1 stall for each 300 square feet of gross floor area.
Restaurants Dine-in/Brew Pub	1 stall for each 2.5 seats plus 0.5 spaces per employee on the largest shift (minimum of 5 employee spaces).
Restaurants – Drive-thru (Food establishment with large proportion of take-out business)	1 stall per 150 square feet of gross floor area (does not include drive thru stalls or waiting areas).

USE	PARKING SPACES REQUIRED
Retail Stores	1 stall for each 300 square feet of gross floor area.
Schools – Vocational and Technical	1 stall for each employee plus 1 stall per each 3 students at maximum capacity.
Short Term Rentals	1 stall per bedroom.
Sports Fields, Sporting Facilities, Arenas	1 stall for every 3 seats at maximum capacity or as approved by the Planning Commission.
Theaters, Sports Arenas, Public Assembly Areas	1 stall for each 3 seats at the maximum seating capacity or as approved by the Planning Commission.
Other non-residential uses not otherwise listed	1 stall per each 500 square feet of gross floor area or as approved by the Planning Commission.
MIXED USES	
Mixed Use – Residential/Commercial	Required parking based on total of combined uses with up to 30% reduction upon Planning Commission approval and a recommendation by a licensed traffic engineer. In cases with more than one owner or where uses exist with different peak use periods, a shared parking agreement may be required.
Transit Oriented Development – As defined by Chapter 38 of the Development Code	Required parking based on total of combined uses with up to 50% reduction upon Planning Commission approval and a recommendation by a licensed traffic engineer. In cases with more than one owner or where uses exist with different peak use periods, a shared parking agreement may be required.

Parking Preference

SURVEY RESPONSE REPORT

20 January 2021 - 26 June 2022

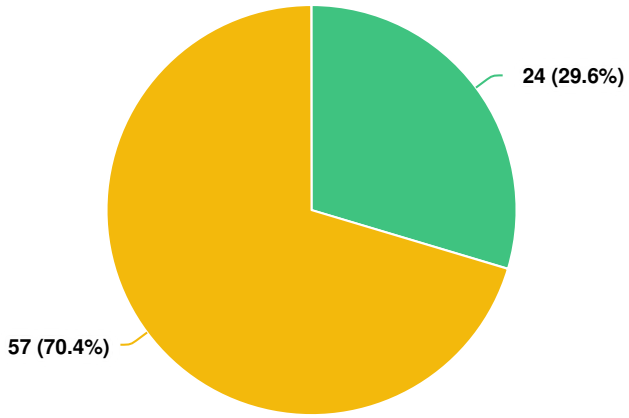
PROJECT NAME:

Parking Requirement Update for Townhomes and Condos

BANG THE TABLE engagementHQ

SURVEY QUESTIONS

Q1 Should tandem parking spots count towards the parking developers must provide? (tandem spots are one directly behind the ot...

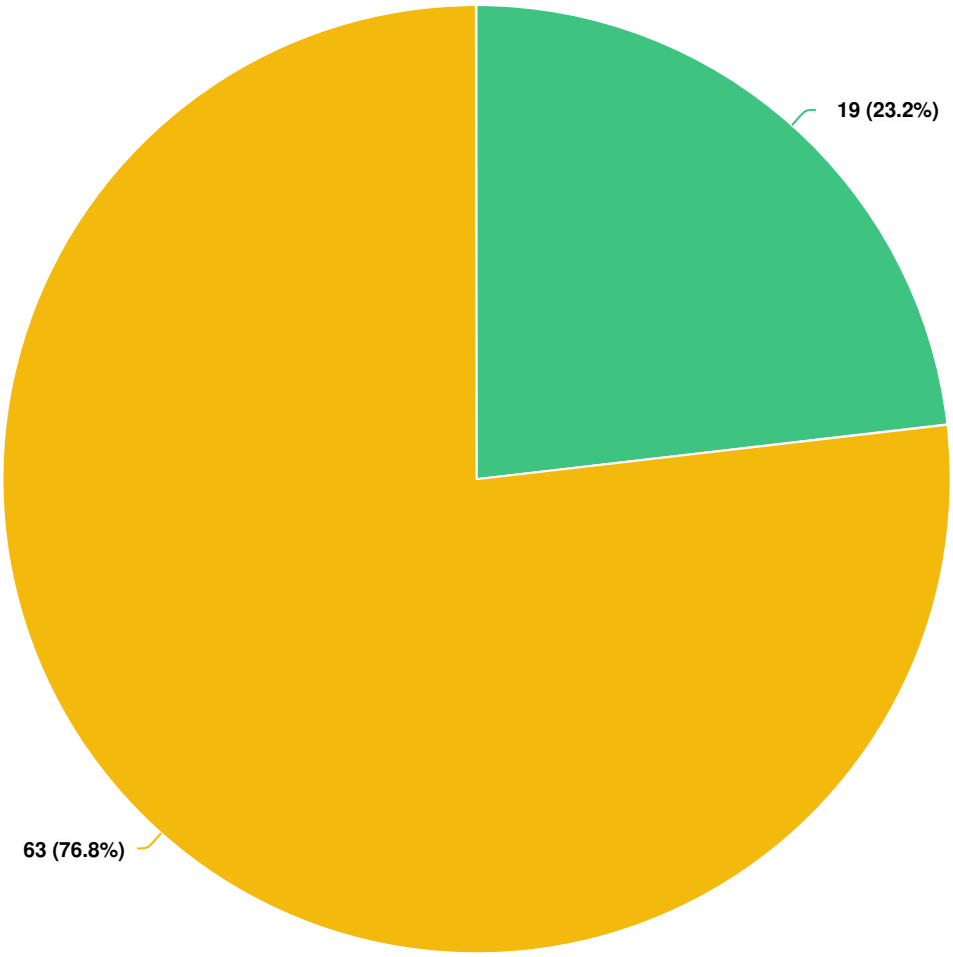


Question options

Yes No

Optional question (81 response(s), 1 skipped)
Question type: Radio Button Question

Q2 When not parking in a garage or driveway where do you prefer to park?

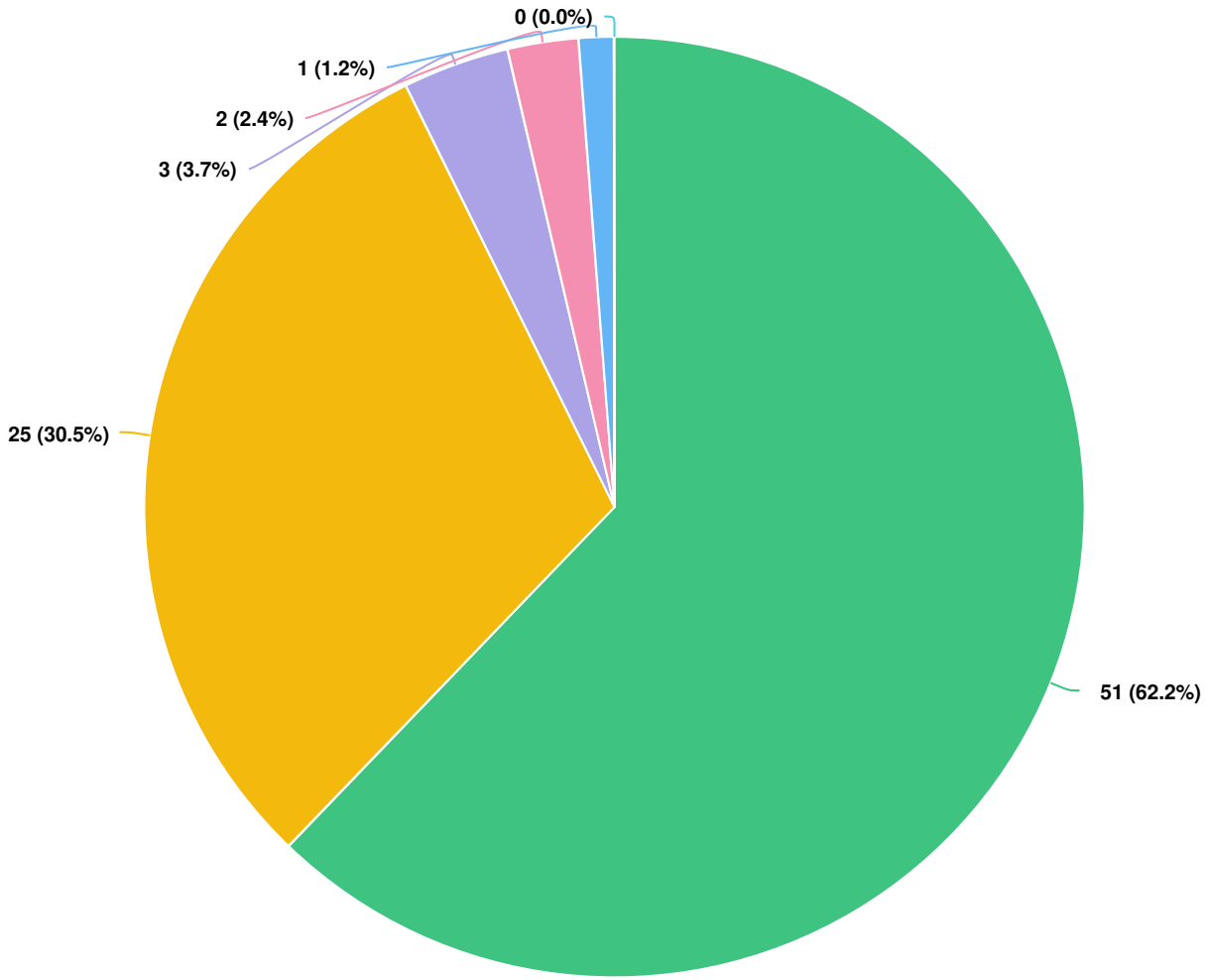


Question options

- The public street
- A parking stall

Optional question (82 response(s), 0 skipped)
Question type: Radio Button Question

Q3 What is the furthest you would be willing to walk from a parking stall to your where you live?

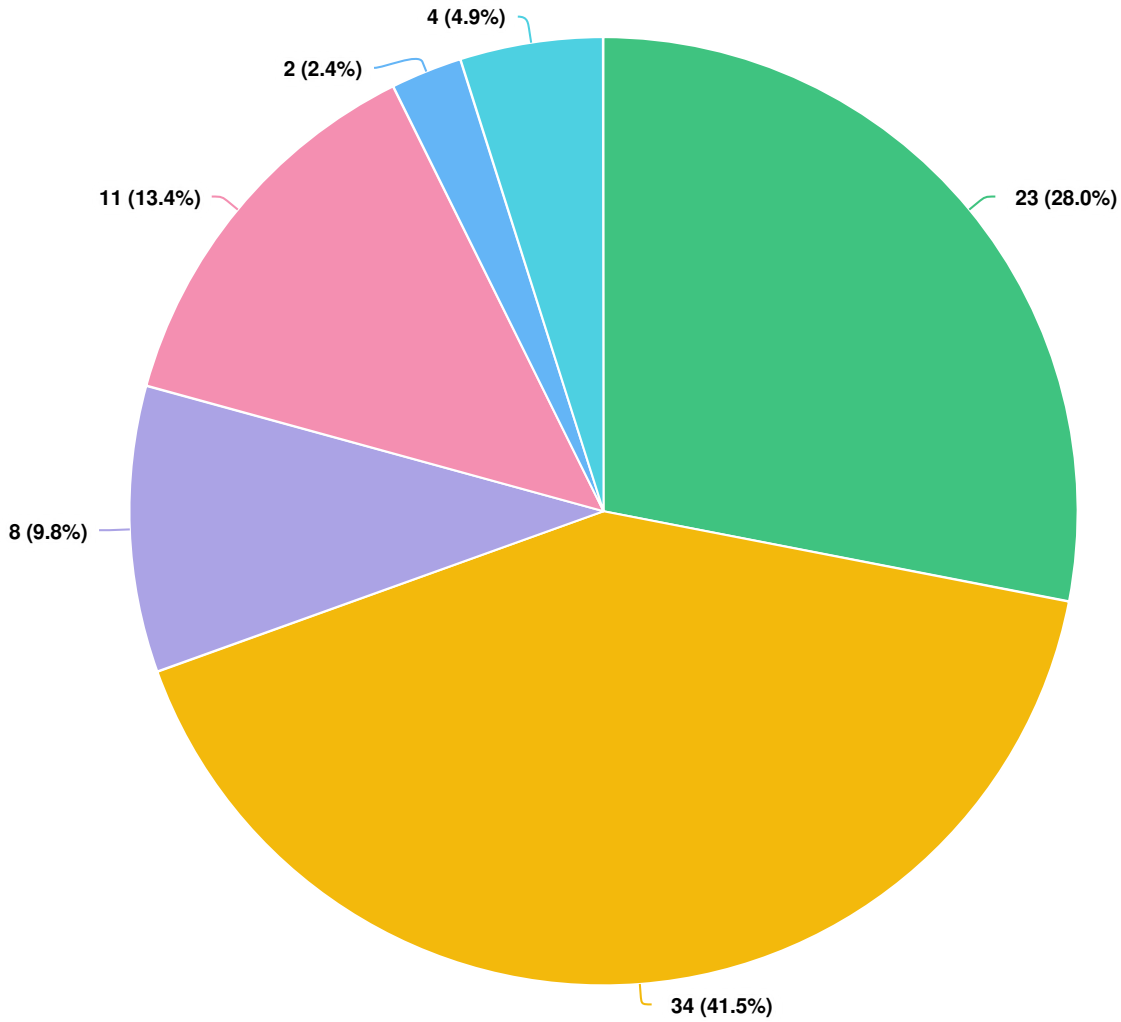


Question options

1/2 Block · 1 Block · 1.5 Blocks · 2 Blocks · 3 blocks · 2.5 blocks

Optional question (82 response(s), 0 skipped)
Question type: Radio Button Question

Q4 What is the furthest you would be willing to walk from a parking stall to visit a friend or family member?

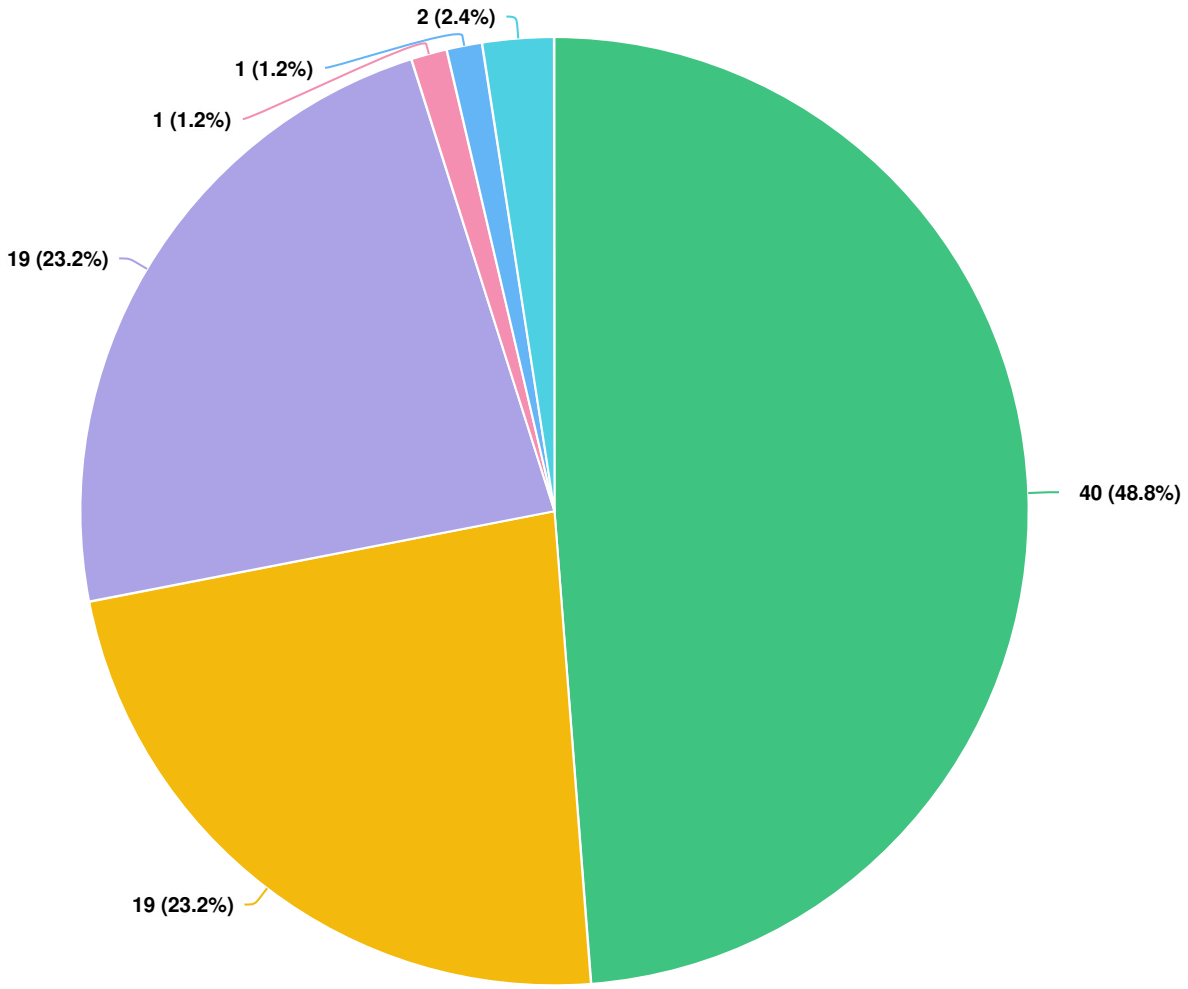


Question options

1/2 Block · 1 Block · 1.5 Blocks · 2 Blocks · 2.5 Blocks · 3 Blocks

Optional question (82 response(s), 0 skipped)
Question type: Radio Button Question

Q5 What kind of unit do you currently live in?



Question options

- Single Family Home
- Townhome
- Condo
- Apartment
- Basement of a single family home
- Other

Optional question (82 response(s), 0 skipped)
Question type: Radio Button Question

Q6 How many cars do you and all the people in your housing unit own?

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Optional question (82 response(s), 0 skipped)
Question type: Number Question

Q7 Anything else you would like staff to consider about parking in the high density areas of Lehi?

I want to be able to comfortably host guests for a dinner party without needing to give specific parking instructions. Parking should be both accessible and intuitive.

I beg the city to open 1500 North by the exchange community to parking instead of a bike lane as it has put hardship on many families in the condos having tow fines due to inadequate parking provided by Edgehomes.

The guests that come over, people using parking stalls instead of their own driveways etc.

Please make the developers building across 700 s. Provide enough parking on the property. The street is parking is used as overflow parking for the sports complex ALL THE TIME.

I feel like there needs to be more parking. Public transportation is lacking so most productive adults usually own a car. I think two stalls for a one bedroom unit should be the minimum allowed. I think accessory dwelling units should be less costly and difficult to license and I think they should be required to provide adequate off street parking.

Too much street parking is congesting the roads and making it hard to safely navigate through some neighborhoods. Make developers in townhomes/condos develop more parking stalls!

This isn't just about where people park (street or driveway), it's also about how do people drive through those streets (that aren't wide enough for cars parked on both sides and two lanes. And, when people park tandem they tend to stretch it into the sidewalk which makes it hard for those walking by or in wheelchairs (or on small

bikes). Shuffling cars tends to mean that someone parks on the street. That car then rarely makes it back into the driveway. Also, more people in the house means a tax (not $) on neighborhood amenities because it's not just one family, it's two!

Garages, if provided, should not be considered as parking spaces in high-density residential areas. Especially in high-density areas, garages are used for storage and not parking. Developers need to be held accountable for the amount of practical (not theoretical) parking they provide, and prospective residents need to be told that they will not be allowed to live there if they need more parking than what is being made available. I'm tired of developers skimping on the amount of parking because they know that Lehi City will provide supplemental street-side parking. That means that city funds are being used to solve parking problems instead of enhancing the city, meanwhile the developers who caused the parking problems walk away with a nice profit.

1500 n was recently paved south if the Exchange. parking should be allowed there especially since there will be a bike lane in the community south. I am an avid cyclist and ride to JORDAN river trail several times a week. I think card should be able to park on 1500 since The Exchange parking is a nightmare.

Parking it out of control in high density housing areas. If there was ever a need for emergency vehicles, especially a fire truck, good luck to them getting down most of the streets in winter. Parking on both sides of the streets should NOT be allowed since it brings the road down to one way traffic. Take a drive down to the high density housing, 3600 W, or other west side areas during early morning hours or later in the evening when people are not at work. It is ridiculous, I avoid it at all costs.

Developers should include the realistic expectation that most household's have 2 vehicles. Even single occupancy units will likely have a guest or roommate at some point, so a bare minimum of 1.75-2 spaces per unit should be considered.

People park in the bike lane on 3600 North because of lack of parking in west Lehi in Cold Spring Ranch. But actually, the people in cottages on private streets in HOAs have it bad, too. Where we have designated parking stalls, they don’t. So if you have multiple family members coming to visit, they literally have nowhere close to park.

And they can’t park in the streets without getting towed. So I think developers who build private roads should have designated parking spots for single family homes, too (especially when they pack them in).

More parking, less buildings. It would be nice if there was 1 visitor spot per 3 units. Handicap parking spots should not count in the parking numbers they should be added on top of required per unit and visitor. Not everyone can use them so they shouldn't be counted.

Please don't allow parking on both sides of the street. In Pilgrims Landing area, it's a nightmare with the apartment complex parking up and down the street and NOT in the parking lot provided.

The street should not be counted as parking for anything in the development code. And every unit should be required to have at least 2 spots per unit. It seems that in TOD designated areas they are trying to skip over these requirements, and this is not good. Although we are striving to be less dependent on cars, it is naive of the city council to even begin to assert that we are at a point where parking can be limited. No matter if there are necessities available within walking distance, people in Utah drive for more reasons than just shopping and work. There are no public schools in the TOD, so even getting your kid to school may be a challenge without cars and adequate parking. If we do not ask developers to foot the bill for parking, it will become a public nuissance.

Because housing is so unaffordable, it seems as though every high density housing area is filled with single people sharing the house with other single people. So however many rooms are available in the units, that seems to be how many parking spots should be available within the development.

Please consider that the current overcrowded parking is only going to get worse. Making changes now will effect Lehi forever, please make the impact positive for future generations

I currently live in the Exchange. They are developing more high density around us and just recently took away our street parking when they widened one of our roads nearby by condo building - taking away essential parking especially now that more and more people are living in the area. At the same time, upticks in towing

(without clear warning from our HOA) happened the same week. We are desperate for parking and consequently I had to pay a $350 towing ticket. I understand that this is between me, the HOA, and the towing company but I would like to see Lehi City step in to help out renters in high density areas so we aren't taken advantage of. It's been really difficult.

If a multi unit home has a garage but no storage unit, the garage should not count as the parking. It should include a garage with, at least, one parking spot. And apartments/condos should also have decent visitor parking. It would also make sense to have extra parking that residents can pay extra to "rent" if they have more than two vehicles.

The parking ratios currently create many hazards. Also, the ability to develop private streets with little to no sidewalks create additional safety concerns. I live in the exchange. The city requirements during the time that development was approved is wholy unsafe for the area. Every street should be required to have side walks on both sides. These sidewalks allow for park strip and space for people leaving their home to be seen, more specifically children. If no private streets were allowed and all public street requirements were met in the exchange there would be 0 parking issues. However, the set back benefits of private streets and additional units that could be constructed allowed the developer to profit at the expense of the long term owners. I am personally bothered by the lack of foresight from the city in this regard. As a person who has been through the development process on a commercial project, I wish the city had been updated their requirments prior to issuing the permits for the exchange and neighboring edge communities. It is truly a safety hazard. Regarding parking on Hardman. It is also unsafe. however, it would have been mitigated if more public streets were created within the exchange. 45* parking along major public roads would have also helped. the list goes on. Please increase the parking requirements for this rapidly developing area. It is not uncommon for each home to have 2-3 cars if not more, especially with the number of investments and rentals. The tandem parking in the condos is truly not sufficient as renters typically come and go with more vehicles than small/young families. Please, as a citizen and business owner in the area, improve these requirements. The developer is incentivized to produce the most houses at the cheapest cost possible. The city is our watchdog and in this regard, the city failed.

Parking in the street creates hazards and can be dangerous when people are parking in front of fire hydrants and parking to close to the

corner of a street or round about. These problems are made worse when there is no parking enforcement. Condos, townhomes and house should be limited to # of cars that can be safely parked in garages, driveways or parking stalls and should not be parking on the street.

As ADUs are now legal in most of Lehi, I think there should also be an update to parking requirements for single-family homes with ADUs. Our streets are becoming filled with cars of residents in ADUs. Most ADU residents have two cars or more cars. That means, because only one parking spot is required for an ADU, the other car(s) owned by the residents of an ADU are parked on the street. In our neighborhood, the majority of the residents in ADUs have more than two cars. So, not just one car is parked on the street, but two cars are parked on the street. Cars being parked on the street are causing congestion, dangerous sight lines as most of the time you cannot see past the line of cars and decreasing the ability for homeowners without ADUs to enjoy their neighborhood. Please address this issue also. Thank you!

2 cars per unit plus .25 cars per unit for visitors

Too little parking available is the biggest daily issue for my family members in low parking areas. When I visit, it is Always a problem, and it is their number one complaint about conflicts in the neighborhood. There have been gun conflicts over parking, for them, and it makes the whole area more uncomfortable and unsafe

With parking snow removal requirements by Lehi City overnight parking is not allowed from Nov 1 to March 30. Lehi is very family oriented and households with multiple drivers have no where to park. I personally do not like overnight parking on our community streets - it is a visual hazard and it doesn't make maintenance of the streets easy where cars are parked. Developers should have to provide additional parking for those that need it.

Lack of parking, aggressive towing enforcement, and preventing people from mobility leads to a lot of anxiety, anger, and frustration. For studios, there should be minimum of 1.25 cars per unit(.25 for visitor parking). For 1 or 2 bedrooms, the minimum should be 2.25 cars. Without these minimum requirements, there will be spillage into the neighboring areas and roads. Then the towing will occur and all of the feelings mentioned above will manifest and it ruins the culture of

an area. This is even more so in a city where the public transit exists, but doesn't fully supply the needs of the community to be mobile enough to go where needed.

Parking on the streets doesn’t bother me as long as there are rules/restrictions so people can still easily drive. I’m so tired of family getting towed from my neighborhood because there just isn’t any room. They shove us all in here like sardines and we pay SO much money to live here and then we can’t even park on the street when we need to because there isn’t any room. Anything would be an improvement. Exchange at edge homes is where we are currently, and it’s so squishy and overpacked I don’t know how everyone makes it work and it’s nerve racking watching hundreds of other townhomes and apartments go up when they can’t even accommodate us.

Street parking is fine as long as there are designated spaces and the overall road width standard is increased. Current streets with parking, like Hardman Way, are too difficult to pull onto with all the street parking it currently occupies. I would like to see developers provide more designated parking inside the communities, especially for winter conditions.

First, tandem parking cannot be counted as 2 spots. The person that gets home from work first also leaves home first, so if the other car parks there, they will have to constantly be moving cars around. I know from personal experience how frustrating this is. Second, if a condo building has 10 units, then there should be at least 3 assigned parking spots for each unit so that they are guaranteed a parking spot close to their home and don't have to walk half mile to their house.

If you're going to build high density, you MUST anticipate that a high number of those units are going to be for renting purposes! Tandem parking should not count as two spots as one blocks the other. This is especially troublesome when there are many units with three cars. Please understand better how Lehi is evolving. The more densely populated this city becomes, the more roads, parking, and housing is going to be congested. You need to plan this city for some seriously expanded roadways, parking, and high flow intersections!

It is unrealistic for the city to provide street parking for developers that don’t provide enough parking for the units they are installing. Emergency vehicles need to have enough space to provide services to everyone. It should rest on the homeowners or developers to

provide parking off of the streets. It is not safe to have all the vehicles on streets, and snow removal is not possible with cars on the streets.

We need more parking on the roads too. Nobody really uses the bike lanes. Turn them into street parking. Bikes can share the road.

less grass strips wider roads

Parking for guests is non existent. Currently live in the exchange.

Street parking is scary, especially with children. If they are going to pack families in a townhome and condo community they need to provide at least 2 safe parking spots for the home. And there should be a designated visiting parking area. Doesn't matter if there is a speed limit set on roads getting in and out with children, groceries, pets is scary on a busy road.

Please require more parking stalls in these communities and let us park on the road. It is so helpful.

Please change parking on city streets in condensed areas where housing is on both sides. Parking should only be on one side of the street or none. For example hardman way is terrible with car blocking the view of traffic with cars on both sides. It's impossible to safely pull out on that street without almost getting hit. Please make the streets safer!

It's absolutely ridiculous to count the driveway as a parking spot when you can't use it if the garage is also in use. It's also hard not having any kind of visitor parking (stall or street). There's no way for any one to visit me unless they park at least 4 blocks away or risk getting towed. There is absolutely no need for a double bike lane on 1900 N (hardman way) or on 1500 N. The need for parking is greater because the parking inside the HOA has become so strict that there is literally nowhere else to park other than those two streets. When moving into this area, I was promised that the additional parking would be on those two streets and the idea that those two streets are being taken away is distressing because there is nowhere else to park unless I want my car towed every single night.

I am lucky in that I live in a townhome with a large driveway so I could park 6 cars including using my garage however with my neighbors most of them have room for 1-2 cars max without the garage. Heaven forbid you have a pickup or large SUV because then you are screwed. Every unit should have room for 2 cars plus parking for a visitor or two. With the greedy builders they build the worlds tightest streets so there is no on the street parking for guests. Of course this is all legal within the Lehi "I love developers" City. Lehi has this fantasy that they can eliminate cars and parking and magically make walkable communities with people who only ride the bus/rail. Senario... You buy an overpriced walking community dwelling aka rabbit hutch at Thanksgiving Points future disaster and you have a nice job near your home... Something happens and you change jobs for some reason and now you no longer live next to your work. What do you do? Do you sell your home and buy one closer to work for 20% more than you paid for your current house.

We have become absolutely boxed in by high density housing, and it is a nightmare! All home owners are so grateful that something has been done to limit parking on streets. It was a huge hazard to have people parking on both sides of the streets. You can't see past cars when you are trying to turn out of the street, let alone have room for cars to drive in both directions. Please require builders to provide more adequate parking for the number of high density being allowed by the city.

With the economy and the cost of living increase mult family housing will increase due to people unable to afford housing or the high cost of rent. Currently, where I live there is no extra space. People fight over street parking. People will park on their front lawn due to lack of space. HOAs do not offer any solutions. The developers did not create enough space for parking leaving narrow streets where parking is only allowed on one side because the roads were developed too narrow.

Put a parking garage in or something. We are the exception, not the rule, with our choice to have 1 car. A lot of the people living here are renting, which means 3 cars (or more) for a 3-bedroom condo. Tandem parking does not count as 2 spaces, because 1 of those cars is inaccessible if the other is present.

Lehi needs to stop acting like we're Manhattan and remember our existing infrastructure. They label giant developments as Transit Oriented Development and pat themselves on the back for limiting

the parking and touting the “walkability” and the mythical “UTA connections” that really aren’t assured or guaranteed with UTA and are decades out IF they even materialize. And even IF they materialize, there’s the real issue of UTA not being sufficient for most Utahans to actually solely rely upon for all their travel needs. When my husband got a new job with a commute, I eagerly investigated mass transit as a way to save gas, efficiently use the travel time as study time for his master’s program, and help reduce our family’s use of limited resources. Guess what I discovered after lengthy study? What was a half an hour commute by car each way turned into a 3 +hour commute not counting wait times and needing to arrive early and leave late. So an hour of driving a day turned into over 6 hours (closer to 7 with wait times) of commute time. That is simply unreasonable to expect. Now imagine trying to grocery shop and run errands on top of all that, solely reliant on mass transit. Madness! TODs are being built with almost no parking today with a pie-in-the-sky wishlist of future UTA viability for these areas, leaving today’s residents of these developments and Lehi as a whole in a real traffic and parking pickle. The planning commission has opined on multiple occasions that Lehi is “overparked” and have actively talked developers (like at the Lehi Block development) into reducing the parking numbers to encourage fewer cars. This is not a video game or simulation and these are real people. Making fewer parking spaces when people are buying any available home vs buying a home because they think it’s the best for their needs out of many choices won’t reduce the need for viable and convenient transportation options in the present day for these families. They need to work. They need to shop. They need to recreate. Lehi is not overparked for what mass transit options we have today and for the foreseeable future. Acting like this is a new problem that you’ve suddenly noticed is frustrating. Educated, data-oriented residents have been pointing out the now-emerging issues for years using facts and hard data for years, but developers fancy but hollow promises were given preference each and every time.

Parking of 3 c are as per unit required, and availability for guest parking on streets or lots. Developers should be required to provide adequate parking of 3 plus cars per unit.

When adequate parking isn’t provided then cars spill out blocking other streets.

We need to have 1500 N as street parking, considering how many people in this community are not single family households and have multiple cars.

The average vehicle count for a family is not 2! Each unit should have at least the same number of parking spots as it has bedrooms. My daughter and her husband live in a 2 bedroom condo and have 3 cars. The rest of us are in a 5 bedroom house and have 6 cars, along with 2 or 3 regular visitors. As the housing prices continue to climb, more and more people are teaming up to afford somewhere to live. Adult children aren't leaving home, multiple families live together, roommates pack into shared rooms. That all means more drivers per residence. Developments could provide a certain number of parking spots with each unit and then have more spots available for rent. That way units with extra cars can have the number of spots they need and the developments make money off the space. That only works if there are enough spaces though.

We need cars off the streets. It's causing chaos and we can't see around cars when trying to exit a street. We have almost been in 10+ accidents just in our edge development. We need these cars towed. People need to clean their garages to park in them instead of parking on the street. This is such a hazard.

The parking situation in all these new high density living areas is horrendous. The street parking is usually unfeasible because the streets between housing units are so narrow and the units are so close or there isn't enough street around the units. There aren't enough parking spaces onsite at most of them any way you look at it. How is a family with teenagers and multiple cars supposed to deal with living in a townhome/condo and the need for parking? Family and Visitors end up with no where to park and it gets even worse during any kind of holiday. Driveways in front of garages should not count as a parking space since garage parking needs access to the street for high density units especially. The driveways are often so short a normal vehicle can't park without blocking the sidewalk, let alone a large truck. It seems like a lot of the units are being built like everyone uses public transit and has sub-compact cars. Developers need to quit designing buildings and parking areas like we live on the east coast. Most people still need vehicles to get where they are going, especially on the west side of Lehi. There are also a lot of large families which require larger vehicles. Parking policies for single family vs multi-family units should not be lumped together under the same policy and should evaluated separately and with consideration for lot size/density.

We have an irrational perspective on parking and rights to it. Developers _can_ offer parking if they feel like that is what their

tenants/guests want. But shouldn't be required to. Most parking spots are empty most of the time. That is a giant waste of land that IMO would be better served in almost any other use. What people really mean when they say there isn't enough parking is there isn't a parking spot within 100' of where they want to go. In urban areas, on-street parking is at a premium and one often has to park many blocks from home. Parking spots cost developers money and are a hidden tax on housing costs. Give the market a chance and I bet that most people want the cheaper housing at the expense of walking a bit more.

Cars parked on the side of Hardman limit visibility making it hard to safely turn onto the street. The visibility on 1500 is great.

There needs to be two parking spots, LESS THAN 1/2 a block away, per unit. Two adults in a home usually both work and have vehicles. If you can't provide adequate parking like this, per unit, do not build.

You have to force these developers to plan literally 3x the amount of parking stalls that they're currently required to have. We're in the Exchange by Edge community and it is an absolute joke that the city allowed them to include such little parking for such a high density development.

As an HOA manager for two multi family communities in Lehi. Tandem parking is terrible. Developers must design and build more creatively to have more off street designated parking for residents and guests while also contributing to the Walk-a-bility (more sidewalks) bike-ablity of communities. Transit oriented developments etc.

Developers should have minimum one off street parking stall per bedroom. Otherwise parking will overflow into public streets and neighborhoods. SLC is a perfect example of this.

There needs to be adequate parking so that the streets aren't so filled with parked cars

Tandem parking will only worsen the parking situation in our communities. New builds going up are already so tight on space and claustrophobic. They are not like the older neighborhoods where there are large driveways and lots. HOA's in these newer

neighborhoods also restrict what things can be parked on driveways and parking spaces making owning trailers and campers and other recreational vehicles more difficult because they must be parked inside a garage, thus limiting parking for vehicles.

Because the developer didn't account for parking in the townhomes directly down the street from us people park all up and down the city road making it absolutely impossible to see people in cross walks or to see to turn. There isn't suppose to be overnight parking on that street but it isn't enforced at all by the city. It has made it miserable to live in this part of Lehi. It has greatly decreased the quality of living in our neighborhood and breaks my heart.

No parking in front of single family homes which are private property and blocks access to the homeowners

Please make sure that developers provide ample parking spaces for residents.

More 6-8 car little parking lots throughout these developments. There’s way too much street parking, and and the streets are too narrow in the newer high density areas.

I came to Lehi from vineyard, largely in part to their ridiculous parking policies. Tow trucks vultured our community 24/7 and there were very few parking spots for such a high density area. Most were a good walking distance away. After moving to Lehi, it was refreshing to feel like I could invite family or friends to my house without asking them to park far and walk over with a load of groceries, or a car seat in one arm and a toddler in the other, or circle around the neighborhood till someone closer left. It’s disappointing to see that problem begin to slowly spring up here in Lehi now. It appears to me that developers build a home assuming a single family will move in, and they only need one-two parking spots. But as a single individual living with roommates, I believe developers should consider that not everyone has a family, and our lifestyle often includes living with other single people who have their own vehicles. It’s impossible to afford a home alone for many or most of us and we need some room to be comfortable and for our neighbors to be comfortable. I understand that we can’t have all the space in the world. But I think it’s important that those who are building our communities don’t assume that everyone moving in will be bringing only one car with them. Perhaps instead of building another row of townhomes, parking could be

considered there? Whether it's a row of parking spaces or some more street space for parallel parking, it would go a long way!

If parking on the street is permitted, it would be nice to keep it to one side of the road so it doesn't become a one way street when it's covers by cars (I'm looking at you garden Dr 😑) . We've seen parking especially become an issue on garbage days & for bus drivers trying to navigate our streets.

No

Tandem parking is a joke! Walking 1/2 a block is also too far. Here at Lehi gateway we are already running out of room and I don't know what we will do once the city takes away parking on Main Street. Tandem parking and the lack of planning has made things difficult.

Optional question (65 response(s), 17 skipped)
Question type: Essay Question

Agenda Item No: 20

City Council Agenda Item Report

Meeting Date: August 23, 2022
Submitted By: Brittney Harris
Submitting Department: Planning Division
Item Type: Ordinance
Agenda Section: Regular Agenda

Subject:
Consideration of Ordinance #49-2022, approving an update to the Moderate Income Housing Plan Goals, Strategies and Timeline to come into conformance with State requirements.

Suggested Action:

Attachments:

CC Staff Report Moderate Income Housing Plan 08.23.22.docx

Moderate-Income Housing Goals and Strategies DRC 07.27.22.docx

Ord 49-2022.docx

Moderate Income Housing Updated Goals, Policies and Timeline.pdf

MODERATE INCOME HOUSING GOALS, STRATEGIES, TIMELINE

CITY COUNCIL REPORT

Applicant	Lehi City
Meeting Date	August 23, 2022
Requested Action/Purpose	Approval of proposed updates to the Moderate-Income Housing Plan
Decision Type	Legislative
Date of DRC Review	July 27, 2022
Date of Planning Commission Review	August 4, 2022

REQUIRED ACTION

Planning Commission	Review and recommendation
City Council	Final approval

APPLICABLE STATE CODE

Utah Code Title 10 Chapter 9a Part 4 Section 403

(a) At a minimum, the proposed general plan, with the accompanying maps, charts, and descriptive and explanatory matter, shall include the planning commission's recommendations for the following plan elements:

(i) a land use element that:

(A) designates the long-term goals and the proposed extent, general distribution, and location of land for housing for residents of various income levels, business, industry, agriculture, recreation, education, public buildings and grounds, open space, and other categories of public and private uses of land as appropriate;

(B) includes a statement of the projections for and standards of population density and building intensity recommended for the various land use categories covered by the plan;

(C) except for a city of the fifth class or a town, is coordinated to integrate the land use element with the water use and preservation element; and

(D) except for a city of the fifth class or a town, accounts for the effect of land use categories and land uses on water demand;

(ii) a transportation and traffic circulation element that:

(A) provides the general location and extent of existing and proposed freeways, arterial and collector streets, public transit, active transportation facilities, and other modes of transportation that the planning commission considers appropriate;

(B) for a municipality that has access to a major transit investment corridor, addresses the municipality's plan for residential and commercial development around major transit investment corridors to maintain and improve the connections between housing, employment, education, recreation, and commerce;

(C) for a municipality that does not have access to a major transit investment corridor, addresses the municipality's plan for residential and commercial development in areas that will maintain and improve the connections between housing, transportation, employment, education, recreation, and commerce; and

(D) correlates with the population projections, the employment projections, and the proposed land use element of the general plan;

(iii) for a specified municipality as defined in Section 10-9a-408, a moderate income housing element that:

(A) provides a realistic opportunity to meet the need for additional moderate income housing within the next five years;

(B) selects three or more moderate income housing strategies described in Subsection (2)(b)(iii) for implementation, including one additional moderate income housing strategy as provided in Subsection (2)(b)(iv) for a specified municipality that has a fixed guideway public transit station; and

(C) includes an implementation plan as provided in Subsection (2)(c); and

(iv) except for a city of the fifth class or a town, a water use and preservation element that addresses:

(A) the effect of permitted development or patterns of development on water demand and water infrastructure;

(B) methods of reducing water demand and per capita consumption for future development;

(C) methods of reducing water demand and per capita consumption for existing development; and

(D) opportunities for the municipality to modify the municipality's operations to eliminate practices or conditions that waste water.

(b) In drafting the moderate income housing element, the planning commission:

(i) shall consider the Legislature's determination that municipalities shall facilitate a reasonable opportunity for a variety of housing, including moderate income housing:

(A) to meet the needs of people of various income levels living, working, or desiring to live or work in the community; and

(B) to allow people with various incomes to benefit from and fully participate in all aspects of neighborhood and community life;

(ii) for a town, may include, and for a specified municipality as defined in Section 10-9a-408, shall include, an analysis of how the municipality will provide a realistic opportunity for the development of moderate income housing within the next five years;

(iii) for a town, may include, and for other municipalities, shall include, a recommendation to implement three or more of the following moderate income housing strategies:

(A) rezone for densities necessary to facilitate the production of moderate income housing;

(B) demonstrate investment in the rehabilitation or expansion of infrastructure that facilitates the construction of moderate income housing;

(C) demonstrate investment in the rehabilitation of existing uninhabitable housing stock into moderate income housing;

(D) identify and utilize general fund subsidies or other sources of revenue to waive construction related fees that are otherwise generally imposed by the municipality for the construction or rehabilitation of moderate income housing;

(E) create or allow for, and reduce regulations related to, internal or detached accessory dwelling units in residential zones;

(F) zone or rezone for higher density or moderate income residential development in commercial or mixed-use zones near major transit investment corridors, commercial centers, or employment centers;

(G) amend land use regulations to allow for higher density or new moderate income residential development in commercial or mixed-use zones near major transit investment corridors;

(H) amend land use regulations to eliminate or reduce parking requirements for residential development where a resident is less likely to rely on the resident's own vehicle, such as residential development near major transit investment corridors or senior living facilities;

(I) amend land use regulations to allow for single room occupancy developments;

(J) implement zoning incentives for moderate income units in new developments;

(K) preserve existing and new moderate income housing and subsidized units by utilizing a landlord incentive program, providing for deed restricted units through a grant program, or, notwithstanding Section 10-9a-535, establishing a housing loss mitigation fund;

(L) reduce, waive, or eliminate impact fees related to moderate income housing;

(M) demonstrate creation of, or participation in, a community land trust program for moderate income housing;

(N) implement a mortgage assistance program for employees of the municipality, an employer that provides contracted services to the municipality, or any other public employer that operates within the municipality;

(O) apply for or partner with an entity that applies for state or federal funds or tax incentives to promote the construction of moderate income housing, an entity that applies for programs offered by the Utah Housing Corporation within that agency's funding capacity, an entity that applies for affordable housing programs administered by the Department of Workforce Services, an entity that applies for affordable housing programs administered by an association of governments established by an interlocal agreement under Title 11, Chapter 13, Interlocal Cooperation Act, an entity that applies for services provided by a public housing authority to preserve and create moderate income housing, or any other entity that applies for programs or services that promote the construction or preservation of moderate income housing;

(P) demonstrate utilization of a moderate income housing set aside from a community reinvestment agency, redevelopment agency, or community development and renewal agency to create or subsidize moderate income housing;

(Q) create a housing and transit reinvestment zone pursuant to Title 63N, Chapter 3, Part 6, Housing and Transit Reinvestment Zone Act;

(R) eliminate impact fees for any accessory dwelling unit that is not an internal accessory dwelling unit as defined in Section 10-9a-530;

(S) create a program to transfer development rights for moderate income housing;

(T) ratify a joint acquisition agreement with another local political subdivision for the purpose of combining resources to acquire property for moderate income housing;

(U) develop a moderate income housing project for residents who are disabled or 55 years old or older;

(V) develop and adopt a station area plan in accordance with Section 10-9a-403.1;

(W) create or allow for, and reduce regulations related to, multifamily residential dwellings compatible in scale and form with detached single-family residential dwellings and located in walkable communities within residential or mixed-use zones; and

(X) demonstrate implementation of any other program or strategy to address the housing needs of residents of the municipality who earn less than 80% of the area median income, including the dedication of a local funding source to moderate income housing or the adoption of a land use ordinance that requires 10% or more of new residential development in a residential zone be dedicated to moderate income housing; and

(iv) in addition to the recommendations required under Subsection (2)(b)(iii), for a municipality that has a fixed guideway public transit station, shall include a recommendation to implement:

(A) the strategy described in Subsection (2)(b)(iii)(V); and

(B) a strategy described in Subsection (2)(b)(iii)(G), (H), or (Q).

(c) (i) In drafting the implementation plan portion of the moderate income housing element as described in Subsection (2)(a)(iii)(C), the planning commission shall establish a timeline for implementing each of the moderate income housing strategies selected by the municipality for implementation.

(ii) The timeline described in Subsection (2)(c)(i) shall:

(A) identify specific measures and benchmarks for implementing each moderate income housing strategy selected by the municipality, whether one-time or ongoing; and

(B) provide flexibility for the municipality to make adjustments as needed.

APPLICABLE DEVELOPMENT CODE REGULATIONS

General Plan; General Procedures.

A. A proposed amendment to the Lehi City General Plan may be initiated by any property owner, any person residing in the City, any business owner, the Hearing Examiner, the Planning Commission, the City Council, the Reviewing Departments, or the City Staff by filing an application for a General Plan amendment.

B. An application for an amendment to the Lehi City General Plan or General Plan Land Use Map shall be filed with the City on the applicable application form as established pursuant to the provisions of this Code.

C. If such amendment is approved, the applicant may then proceed to file an application for development approval if the development is consistent with the approved General Plan amendment.

Section 04.020. Procedures for Amending the Lehi City General Plan Text and Maps.

A. The Planning Division shall prepare a report of the findings of the Reviewing Departments within 21 days and not less than seven days prior to the meeting with the Commission indicating whether the proposed amendment is consistent with the Elements of the General Plan including, the effect of the proposed amendment on the existing goals, objectives and policies of the General Plan, and listing any revisions to this Code that would be needed to implement the proposed amendment.

B. Prior to recommending the adoption, rejection or revision of any General Plan amendment, the Planning Commission shall hold a public hearing in accordance with the procedures of this Code and the Utah Code, after receiving the report of the findings of the Reviewing Departments and providing at least ten days' notice.

C. After the Planning Commission has reviewed the application and made its recommendation, the Planning Division shall submit a copy of the General Plan amendment as recommended by the Commission, the report of the findings of the Reviewing Departments, and the transcripts or minutes of the proceedings before the Commission to the City Council. The City Council shall then schedule a public meeting to consider the Planning Commission recommendation. The City Council shall consider the proposed General Plan amendment and the recommendation of the Commission pursuant to the procedures established by this Code and the Utah Code including the required notice for a public meeting. The City Council shall approve the amendment, revise and approve the proposed amendment, or reject the proposed amendment. If the City Council approves the proposed amendment as submitted or as revised, the City Council shall adopt the General Plan amendment by ordinance.

Section 04.030. Criteria for Approval of General Plan Text and Map Amendments.

In considering a proposed amendment to the Lehi City General Plan, the applicant shall identify, and the City Staff, Reviewing Departments, Planning Commission, and the City Council will consider the following factors, among others:

1. the effect of the proposed amendment on the character of the surrounding area;

2. consistency with the goals and policies of the General Plan;

3. consistency and compatibility with the General Plan uses of nearby and adjoining properties;

4. the suitability of the properties for the uses requested and their suitability for the uses identified by the General Plan;

5. whether a change in the uses proposed for the affected properties will unduly affect the uses, or proposed uses for nearby and adjoining properties;

6. the gain to the public health, safety and welfare from the existing classification to the proposed amendment; and

7. the overall community benefit of the proposed amendment.

Section 04.040. Effect of General Plan Amendment.
From and after the effective date of a General Plan amendment, no amendments shall be made to this Code nor shall any development permit be approved or approved with conditions, unless such amendments, approvals and conditions are consistent with the adopted General Plan or Element or portion thereof as amended. A General Plan amendment does not authorize the development of land. After a General Plan amendment has been approved by the City Council, no development shall occur until the required development permits and licenses have been issued by the City.

REPORT ANALYSIS

The applicant requests approval of the proposed changes to the Lehi City Moderate Income Housing Element of the General Plan.

Utah State Congress passed legislation this year requiring cities to update their Moderate-Income Housing goals by October 1st. They included a list of possible goals and require that cities with fixed transit stations have at least four goals. Lehi has the Frontrunner station which puts the City in the category of requiring four goals. To receive priority funding, the City must have six goals. We also must include a timeline to accomplish each of the goals. The City will report annually on the steps made to achieve those goals.

The proposed goals reflect feedback given by residents on Engage Lehi, existing projects, conversations Staff has had with developers and residents, and feedback given by the Planning Commission and City Council.

We are required to have a goal pertaining to the Station Area Plan because of the existing Frontrunner station. Goals two and three come from a list of three possible goals that cities with a fixed rail station must choose between. We currently are working on both so including them both as goals does not increase the workload for Staff.

Goal four correlates to our goal to increase the housing units along Main Street and will require additional studies.

Goal five to reduce the lot size requirement for detached ADUs, comes from a large number of phone calls that Planning Staff receives for ADUs on lots smaller than half an acre in size.

Goal six reflects a desire to create a zone to allow for the City and Developers to work together in finding innovative solutions to housing affordability. The goal is to create an ordinance with enough flexibility to allow a variety of affordable housing solutions.

The City currently participates in the Utah Valley HOME Consortium and just renewed its membership in that group. Goal seven reflects this continual effort.

The DRC had one redline comment to fix a typing error from “a” to “and”.

POSSIBLE MOTIONS AND FINDINGS

The City Council may approve or deny the proposed Lehi City Moderate Income Housing Plan. Any motion should include findings. Possible findings include:

1. The proposed Moderate Income Housing Goals, Strategies and Timeline are/are not in compliance with the State requirements.
2. The proposed Moderate Income Housing Goals, Strategies and Timeline will/will not increase affordability in Lehi.
3. The proposed Moderate Income Housing Goals, Strategies and Timeline is/is not in conformance with the purposes, intent, and provisions of the General Plan and its various elements.

4. Additional findings based upon information presented during the public hearing.

PLANNING COMMISSION RECOMMENDATION

The Planning Commission reviewed the proposed Moderate Income Housing Plan on August 4, 2022. The minutes and motion from that meeting have been uploaded separately.

Moderate-Income Housing Goals and Strategies
DRC Redline Comments

Lehi City- requests review of the Moderate-Income Housing Goals and Strategies Update.

DRC Members Present: Glade Kirkham, Garion Rowett, Greg Allred, Ryan Allred, Jacob Hernandez, Kim Struthers, Gary Smith, Ross Dinsdale, Trent Dyer
Representatives of the Applicant Present: Brittney Harris
Date of Plans Reviewed: 7/20/22
Time Start: 2:27pm
Time End: 2:30pm

DRC REDLINE COMMENTS:
Glade – Power: No comments
Garion – Fire: No comments
Greg/Ryan – Water/Sewer: No comments
Trent – Parks: No comments
Gary – Building/Inspections: No comments
Jacob – Public Works: No comments
Ross – Engineering: No comments
Kim – Planning:
1. Change "a" to "and" in goal 2 strategy 1.

THIS ITEM IS SCHEDULED FOR PLANNING COMMISSION ON AUGUST 4th

Note: This list of corrections and deficiencies should not be considered as an all-inclusive or final list. The items listed need to be corrected and resolved and a new set of information submitted for review by the DRC. Further corrections and deficiencies may still be noted as the DRC further reviews the resubmitted information.

ORDINANCE NO: 49-2022

ORDINANCE COMPREHENSIVELY UPDATING THE LAND USE ELEMENT OF THE LEHI CITY GENERAL PLAN AND THE GENERAL PLAN LAND USE MAP

WHEREAS, on August 23, 2022, following all necessary public hearings, the Lehi City Council adopted updated goals, strategies and timelines for the Moderate Income Housing Element of the Lehi City General Plan; and

WHEREAS, the Lehi City Planning Commission held a public hearing on August 4, 2022, to review and make a recommendation on the updated Moderate Income Housing Goals and forwarded their positive recommendation to the City Council; and

WHEREAS, the City Council held a public meeting on August 23, 2022, pursuant to the requirements for amendment of the Moderate Income Housing Element of the Lehi City General Plan;

NOW, THEREFORE, IT IS ORDAINED BY THE CITY COUNCIL OF LEHI CITY, UTAH AS FOLLOWS:

PART 1:

The Moderate Income Housing Element is hereby updated.

PART II:

If a provision of this Ordinance -2022 conflicts with a provision of a previously adopted ordinance concerning the same title, chapter, and/or section number amended herein, the provision in this Ordinance shall prevail.

A. This ordinance and its various section, clauses and paragraphs are hereby declared to be severable. If any part, sentence, clause or phrase is adjudged to be unconstitutional or invalid, the remainder shall not be affected thereby.

B. The City Council hereby directs that the official copy of the Lehi City General Plan be updated to reflect the provisions enacted by this Ordinance.

D. This Ordinance shall take effect immediately after being posted or published as required by law.

Approved and Adopted by the City Council of Lehi City this 23rd day of August 2022.

ATTEST

_____ _____

Mark Johnson, Mayor Teisha Wilson, City Recorder

XI. LEHI'S GOALS, STRATEGIES, AND TIMELINE FOR MODERATE INCOME HOUSING (updated DATE)

Goal 1 Develop and adopt a station area plan in accordance with Section 10-9a-403.1

Strategy 1: Develop and adopt the Lehi Frontrunner Station Area Plan

- Continue work with Utah Transit Authority (UTA) and the Design Workshop to finalize the plan
- Reach out to Mountainland Association of Governments (MAG) manager to ensure the proposed area plan meets the State requirements

Timeline

October-December 2022 City Council adoption of the Lehi Frontrunner Station Area Plan

Strategy 2: Seek funding for and start on station area plan for proposed BRT stop on State Street

- Look into funding opportunities through MAG for this area plan
- Apply for funding
- Form a committee and start work on developing the station area plan

Timeline

November- December 2022 Research funding opportunities
January-March 2023 Apply for Funding
Spring/Summer 2023 Work on Area Plan

Goal 2 Create a housing and transit reinvestment zone pursuant to Title 63N, Chapter 3, Part 6, Housing and Transit Reinvestment Zone Act

Strategy 1: Create a housing a transit reinvestment zone around the Lehi Frontrunner Station

- Work with stakeholders in the Thanksgiving Point Frontrunner Station area, the Lehi City Economic Development Director, and the Lehi City Council to submit proposal for the HTRZ zone.

Timeline

December 2022-February 2023 Submit proposal to the Governor's Office of Economic Opportunity

Goal 3 Amend land use regulations to allow for high density or new moderate income residential development in commercial or mixed-use zones near transit investment corridors

Strategy 1: Update the Development Code to allow for residential units in areas designated as Mixed-Use on the General Plan

- Get proposed changes adopted by the City Council

- Monitor the Code and make adjustments as necessary
- Research and consider including an element of inclusionary housing

Timeline

November- December 2022 City Council adoption of the proposed amendment to allow residential in the Mixed-Use Zone

January-August 2023 Monitor the Code and make changes as necessary to promote residential units and a mixture of uses.

January- March 2023 Research inclusionary zoning and present information to Planning Commission and City Council

Goal 4 Create or allow for, and reduce regulations related to, multifamily residential dwellings compatible in scale and form with detached single-family residential dwellings and located in walkable communities within residential or mixed-use zones

Strategy 1: Reduce the spacing between two, three and four-family dwellings in the downtown overlay. And propose design requirements to preserve the existing historic neighborhood feel.

- Study the impact of reducing the spacing from 400 feet
- Research and draft design requirements that are compatible with the existing downtown design styles
- Present information to the Planning Commission and City Council
- Amend the Code to reduce the spacing overlay and add design requirements

Timeline

October-December 2022 Analyze the impact of reducing the overlay

January-March 2023 Research and draft design requirements

April 2023 Present information on reducing overlay to Planning Commission and City Council

April-July 2023 Amend the Development Code to reduce the overlay spacing

Goal 5 Create or allow for, and reduce regulations related to, internal or detached accessory dwelling units in residential zones

Strategy 1: Allow Detached Accessory Dwelling Units (ADUs) on 1/3 acre lots, consider reducing setback requirements and removing the garage requirement for new build ADUs

- Study the impact of changing from half acre to third acre lots
- Analyze setbacks and size of ADU without a garage
- Present the information to the Planning Commission and City Council
- Amend the Code to allow detached ADUs on third acre lots.

Timeline

January-March 2023 Analyze the impact of allowing detached ADUs on third acre lots

April-June 2023 Present information on impact to Planning Commission and City Council
July-September 2023 Amend the Development Code to allow detached ADUs on third acre lots

Goal 6 Demonstrate implementation of any other program or strategy to address the housing needs of residents of the county/municipality who earn less than 80% of the area median income, including the dedication of a local funding source to moderate income housing or the adoption of a land use ordinance that requires 10% or more of new residential development in a residential zone be dedicated to moderate income housing

Strategy 1: Amend the Development Code to create an affordable housing overlay zone and outline in the Code the approval process and requirements that can be waived.

- Research other cities that have affordable housing overlay zones
- Propose an amendment to allow applications for affordable units in any zoning district, outline what is required for applications, what Code requirements can be modified, and any other needed information.
- Work with the Planning Commission and City Council to get it approved

Timeline
April-May 2023 Research other cities with affordable housing overlay
June-July 2023 Draft a Code Amendment creating the affordable housing overlay
August 2023 Present draft amendment to the Planning Commission and City Council

September-October 2023 Work with the Planning Commission and City Council on adopting the amendment

Goal 7 Apply for or partner with an entity that applies for state or federal funds or tax incentives to promote the construction of moderate income housing, an entity that applies for programs offered by the Utah Housing Corporation within that agency's funding capacity, an entity that applies for affordable housing programs administered by the Department of Workforce Services, an entity that applies for affordable housing programs administered by an association of governments established by an interlocal agreement under Title 11, Chapter 13, Interlocal Cooperation Act, an entity that applies for services provided by a public housing authority to preserve and create moderate income housing, or any other entity that applies for programs or services that promote the construction or preservation of moderate income housing

Strategy 1: Continue to participate in the Utah Valley HOME Consortium

- Participate on the HOME Advisory Board to review and evaluate projects to provide funding recommendations for the use of HOME funds.
- Vote on Loan to Own applications.

Timeline

March 2023 Participate on HOME Advisory Board to vote for funding of applications.
October 2022-October 2023 Continually vote on Loan to Own applications as submitted for review.

Strategy 2: Encourage developers, builders, and residents in Lehi City to apply for the funds available through the Utah Valley HOME Consortium

- Create information sheets encouraging developers and builders to apply HOME Consortium funds when applicable.
- Create information sheets and other marketing tools to encourage residents who might qualify to apply for Loan to Own program.

Timeline

March-May 2023 Put together information sheets on the HOME Consortium and how to apply for funds